Digitized by the Internet Archive
in 2018 with funding from
University of Illinois Urbana-Champaign

https://archive.org/details/addisoncreekstor00unse

18939026

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM EVALUATION

DUPAGE AND COOK COUNTIES, ILLINOIS

Prepared For:

Illinois Department of Transportation
Division of Water Resources

Prepared By:

Donohue & Associates, Inc.

August, 1988
DOWR/CON/88-001

Donohue Project No. 16025/15495

ILLINOIS STATE LIBRARY
3 1129 00493 1101

SYLLABUS

The Addison Creek watershed comprises some twenty-one square miles in Cook and DuPage Counties. Addison Creek is the principal tributary of Salt Creek, joining that stream about three and one-half miles above its junction with the Des Plaines River at Riverside.

In the past 20 years, eight flood control reservoirs have been constructed across the watershed by various agencies. The specific operation and interaction of these reservoirs were not known.

The purpose of this investigation is to develop hydrologic-hydraulic models that are representative of the flood control/ drainage system in the watershed, to evaluate how the reservoirs are operated and how they interact, and to recommend operational and physical modifications that will maximize the effectiveness of the existing reservoirs and reduce flooding in the watershed.

The analyses prepared for this project utilized Illinois State Water Survey (ISWS) Technical Letter 13 for rainfall data. The ISWS is in the process of updating this data and publishing new rainfall-frequency relationships. Any subsequent investigation should utilize the new data when it is available.

Specific recommendations for the watershed include:

1. Operate the Railroad Avenue Reservoir with its bypass gate fully open, rather that closed during flood events.

2. Follow specific reservoir operation rules to ensure efficient operation and prevent further aggravation of flood conditions.

3. Consider expanding the capacity of William Redmond Reservoir and decreasing its bypass rate.

4. Consider construction of SCS Structure No. 92 in the Proviso railroad yard to provide flood relief in the downstream reach of the creek.

These recommendations are made based on predicted favorable reduction in flow and stage along Addison Creek. However, the final test of the feasibility of any of these recommendations is whether they have a favorable benefit to cost ratio. These economic analyses and further specific technical details should be addressed in a subsequent "Phase III" investigation which will determine the economic feasibility of each recommendation.

R/IDOT/AG5

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM STUDY REPORT

TABLE OF CONTENTS

Page

1. Introduction 1-1

2. Authority 2-1

3. Watershed Description 3-1

4. Flood Control Structures 4-1

5. Hydrologic and Hydraulic Analysis 5-1
   Introduction 5-1
   Hydrologic Analysis 5-2
   Hydraulic Analysis 5-7

6. Evaluation of Reservoir Operations 6-1
   Introduction 6-1
   Description of Existing Flood Control Reservoirs 6-1
      William Redmond Reservoir 6-2
      SCS Structure No. 86 Reservoir 6-4
      York Road/I-90 Interchange Reservoir 6-5
      Arlington Cemetery Reservoir 6-6
      Railroad Avenue Reservoir 6-8
      Doyle (Northlake) Reservoir 6-10
      Lower Elmhurst Reservoir 6-12
      Hillside Retention Reservoir 6-15
   Evaluation of Reservoir Filling and Dewatering Operations 6-16
      Evaluation of Reservoir Filling Operations 6-19
      Evaluation of Reservoir Dewatering Operations 6-27

7. Operational Plans of Improvement 7-1
   Introduction 7-1
   Filling Operations 7-1
   Dewatering Operations 7-2

8. Physical Plans of Improvement 8-1
   Introduction 8-1
   Modification of Reservoir Structures 8-2
   Channel Improvements and Levees/Flood Walls 8-10

9. Recommendations 9-1
   Introduction 9-1
   Conclusions 9-1
   Recommendations 9-3

LIST OF APPENDICES

A. References

B. Figures

C. Glossary of Terms

D. Hydrologic Analysis Data

E. Hydraulic Analysis Data

F. Reservoir Summary Tables

LIST OF TABLES

Table		Page
1	Reservoir Design Storage Capacities and Highwater Elevations	4-3
2	Calibration Event Data	5-3
3	Reservoir As-Built Storage Capacities, Highwater Elevations and Level of Protection	6-18
4	Summary of Current Dewatering Operations	6-28
5	Recommended Operating Rules for Dewatering Reservoirs with Pumped Outflows	7-6
6	Flood Level Reductions Through Physical Modifications	8-5

R/IDOT/AG7

CHAPTER 1

INTRODUCTION

The Addison Creek watershed is located west of Chicago, and south of O'Hare International Airport, in Cook and DuPage Counties, Illinois. (See Figure 1). The Creek has a history of major flooding in residential, commercial and industrial areas. The Illinois Department of Transportation (IDOT), in an effort to relieve the flooding, has constructed five flood control reservoirs and has proposed an expansion of an existing reservoir constructed by the City of Elmhurst. IDOT has pre-excavated a seventh flood control reservoir, Structure 86, which will be completed by the Soil Conservation Service (SCS). A flood control reservoir has also been constructed by the Metropolitan Sanitary District of Greater Chicago (MSDGC). The eight major flood control structures are:

William Redmond (George Street) Reservoir
SCS Structure No. 86
York Road /I-90 Reservoir
Arlington Cemetery Reservoir
Railroad Avenue Reservoir
Doyle (Northlake) Reservoir
Lower Elmhurst Reservoir
Hillside Retention Reservoir

The purpose of the Addison Creek Stormwater Management System project was to develop hydrologic and hydraulic models of the Addison Creek watershed including the eight flood control structures, to determine how effectively the reservoirs interact together to control flooding in the watershed and to determine if any improvements are necessary to improve their efficiency of operation or decrease flooding along the creek. The project was divided into two phases. Phase I involved the development of HEC-1 and HEC-2 models for the watershed with the current operation procedures of the flood control reservoirs. The hydrologic modeling emphasized the overall response of the watershed and did not address a detailed analysis of the storm drainage system upstream of the reservoirs. Phase II evaluated the current operation of the reservoirs and investigated operational and physical modifications to the system to optimize their efficiency for flood control based on stage reduction at various locations along creek.

Phase II is not intended to serve as justification for construction of any further improvements in the watershed. Rather, Phase II is intended to identify modifications that appear technically feasible and warrant further detailed investigation. A "Phase III" investigation would assess the economic feasibility of the recommended improvements to determine if they have a favorable benefit-cost ratio and should be constructed.

The Phase II investigation utilized Technical Letter 13 by the Illinois State Water Survey (ISWS) as the source of rainfall data for the hydrologic analysis. The ISWS is in the process of updating this data and expects to release new rainfall-frequency relationships in the near future. Any subsequent investigations (Phase III) should utilize this data when it becomes available.

Figures that are discussed in this report are grouped together at the end of the report in Appendix B. Appendix C presents a Glossary of Terms to assist the reader not familiar with some of the terms commonly utilized in flood control and stormwater management.

RP/IDOT/AF1

CHAPTER 2

AUTHORITY

This study was initiated by the IDOT, Division of Water Resources as part of the flood control efforts in the Addison Creek watershed. This study was conducted under the general authorization of "An act authorizing certain improvements for the purpose of flood relief and the conservation of low water flows in the rivers and waters of the State," approved July 17, 1945, (Illinois Revised Statutes, Chapter 19, Paragraphs 126a-126h), as amended January 1, 1972.

RP/IDOT/AF2

CHAPTER 3

WATERSHED DESCRIPTION

The Addison Creek watershed is in DuPage and Cook Counties in northeastern Illinois. The 21 square mile watershed is directly south of the O'Hare International Airport. Portions of Bensenville, Elmhurst and Wood Dale in DuPage County flow to Addison Creek, along with portions of Bellwood, Berkeley, Broadview, Hillside, Melrose Park, Northlake, Stone Park and Westchester in Cook County.

The majority of the watershed is fully urbanized. The land slope of the watershed can be classified as mild to flat. The average fall across the watershed is approximately 5 feet/mile. Soils are generally silty clay loams.

Addison Creek is in the Illinois River Basin and is tributary to Salt Creek. The headwaters of Addison Creek originate in Bensenville and Wood Dale. From the headwaters, the creek flows southeast and south for approximately ten miles to its confluence with Salt Creek south of Broadview.

The flood of record for the Addison Creek Watershed occurred on August 13-14, 1987, when 9.35 inches of rain fell in the northern portion of the watershed in 15 hours (USGS, 1987). A peak flow of 1,450 cubic feet per second (cfs) was estimated at the USGS stream gage at Washington Boulevard in Bellwood (Donohue, May 18, 1988).

RP/IDOT/AF3

CHAPTER 4

FLOOD CONTROL STRUCTURES

Eight flood control structures have been constructed in the Addison Creek watershed in the 1970's and 1980's. William Redmond, York Road/I-90, Arlington Cemetery, Railroad Avenue and the existing configuration of Structure 86 were constructed by IDOT. Lower Elmhurst Reservoir was constructed by the City of Elmhurst and will be expanded by IDOT. Hillside Retention Reservoir was constructed by the Metropolitan Sanitary District of Greater Chicago (MSDGC). Figure 1 presents the locations of the flood control structures.

All the structures are "gravity-in", "pump-out" type reservoirs except York Road/I-90 and Lower Elmhurst. York Road/I-90 and the existing Lower Elmhurst are "gravity-in", "gravity-out" reservoirs. The proposed Lower Elmhurst Reservoir, which was included in the watershed study will be "gravity-in" to the lower pool and a "pump-in" to the elevated storage or upper pool. Both pools will gravity-drain. The existing SCS Structure 86, which is considered a temporary structure to be completed at a later date, was evaluated as it currently exists.

Chapter 6 provides a description of the eight flood control reservoirs in the Addison Creek watershed. Plan and detail schematics of each reservoir are provided in Figures 3 through 10. Table 1 presents the design storage capacity, and design water level of the Addison Creek flood control reservoirs.

RP/IDOT/AF4

TABLE 1

RESERVOIR DESIGN STORAGE CAPACITIES AND HIGHWATER ELEVATIONS

Reservoir	Storage Capacity (acre-feet)	Design HW Elev. (feet)
William Redmond	635	656
Structure 86	360	652
Railroad Avenue	38	654
Arlington Cemetery	71	656
York Road/I-90	18	682
Doyle (Northlake)	70	653
Lower Elmhurst (Proposed)	18* 86**	664 678
Hillside	100	632.5

---

*Lower Pool
**Upper Pool

RP/IDOT/AC8

CHAPTER 5

HYDROLOGIC AND HYDRAULIC ANALYSIS

INTRODUCTION

The U.S. Army Corps of Engineers HEC-1 computer model was used to model the rainfall/runoff pattern in the Addison Creek watershed. HEC-1 is a hydrologic model which simulates the behavior of a watershed during a rainfall event. HEC-2 was used with flow rates developed in HEC-1 to define flood profiles of Addison Creek. HEC-2 computes the flood elevations and defines the floodplain limits of the creek based on input cross section and bridge data. Both models were constructed using available data and calibrated using observed rainfall and stream flow data.

Design flows and profiles were developed for Addison Creek using the Illinois State Water Survey Technical Letter 13 (TL-13) for rainfall depths and Report of Investigation 82 (RI-82) for rainfall distributions (ISWS, 1970 and 1976).

Technical Letter 13 rainfall was the best data available at the time of these analyses were conducted. It is suspected that the analyses and designs for most, if not all, of the eight existing flood control reservoirs used another less recent rainfall data source by the National Weather Service (NWS). Rainfall volumes

for higher frequency events, such as the 100-year event, are considerably higher for the ISWS data than for the NWS data. This difference in rainfall is an important consideration when evaluating the results of the hydrologic and reservoir operations analyses because it may result in an apparent lower level of protection for a facility than was previously believed.

The HEC-1 and HEC-2 model were used interactively to properly account for channel and floodplain storage along the creek. Initial flows developed in HEC-1 were used in HEC-2 to define channel/floodplain storage, channel velocities and travel times. This HEC-2 data was then used in HEC-1 to select appropriate routing parameters and develop final routed flows. The resulting flows were used in HEC-2 to develop final water surface profiles.

HYDROLOGIC ANALYSIS

Hydrologic Model

Subbasins were delineated for the 21 square mile Addison Creek watershed using United States Geological Survey (USGS) 7-1/2 minute quadrangle maps, available aerial mapping and storm sewer information. Subbasin boundaries for the 29 subbasins delineated were field verified and are shown in Figure 2. Rainfall runoff was estimated using the Soil Conservation Service Curve Number (CN) method. CN's were developed based on soil

types and land uses in the watershed. Clark's Unit Hydrograph method was used to develop runoff hydrographs for each subbasin.

"As-built" plans, reservoir topography and project planning studies were used to determine storage volumes, and inflow and outflow rating curves for the flood control reservoirs. Outflows from subbasins and reservoirs were routed to downstream locations in the watershed using modified Puls and normal depth channel routing methods. A listing of the HEC-1 input data is provided in Appendix D.

Calibration

Flow data from the USGS gage at Bellwood and rainfall data from the National Weather Service station at O'Hare were reviewed to identify appropriate calibration methods. The following flood events were selected for calibration of the HEC-1 model:

TABLE 2

CALIBRATION EVENT DATA

Event	Duration	Total Rainfall	Frequency of Rainfall	Peak Discharge	Frequency of Discharge
8/14/87	15 hrs.	9.35"	>100-yr.	1,450 cfs	>100-yr.
12/2/82	12 hrs.	4.61"	<25-yr.	639 cfs	9-yr.
7/20/80	6 hrs.	1.54"	<2-yr.	662 cfs	12-yr.

The calibration proceeded initially with the July, 1980 and December, 1982 events. Shortly thereafter, the August, 1987 event occurred and was also incorporated into the calibration effort. The 1980 and 1982 events showed peak flow and volume inconsistencies between the two events. Although these inconsistencies prevented successful calibration to these events, the result was a first set of modifications to the HEC-1 model that were further refined using the August, 1987 event.

The August, 1987 event, as originally modeled, produced peak flows and volumes lower than the observed hydrograph at the USGS gage. The calibration required adjustments to produce a significant increase in the peak flow and a minor increase in runoff volume. Several hydrologic parameter modifications were considered in the calibration including the rainfall, the runoff volume, the magnitude of the peak flows from subbasins and the timing of the peak flows from subbasins.

The runoff hydrograph at the gage required extrapolation of the peak flow because of a malfunction in the recording mechanism during the event. The peak flow was extrapolated based on the shape of the hydrograph, resulting in an estimated peak flow of 1,450 cfs.

The calibrated hydrologic model predicted a peak flow of 1,290 cfs for the August, 1987 event compared to the extrapolated gage peak flow of 1,450 cfs. Runoff volumes matched reasonably well, with the computed volume being about 10 percent higher than the observed volume.

Flow Results

Following the calibration of the HEC-1 and HEC-2 models, design flows were computed for the 2-, 5-, 10-, 25-, 50-, and 100-year flood events for 3-, 6-, 12-, 24-, and 48-hour durations. Critical durations were determined for each recurrence interval. The critical durations varied across the watershed, but were generally in the 12- to 48-hour range. Generally, the critical duration increased with drainage area. A summary flow table is presented in Appendix E.

The predicted flows generated by the HEC-1 model appear to be reasonable for the larger (50- and 100-year) storm events when compared to the calibration event and to the flows from the Flood Insurance Studies (FIS). The HEC-1 flows are on the average 1.6 to 1.7 times higher than the FIS flows, which is consistent with the difference in rainfall volumes between rainfall sources TL-13 and TP-40. During the 100-year event, TL-13 generates 50 percent more rainfall than TP-40, producing a similar increase in runoff.

For the more frequent lower recurrence interval events, the HEC-1 flows are also about 1.6 times higher than the FIS flows. This difference cannot be explained by differences in the rainfall alone because the 10-year TL-13 rainfall only generates about 15 percent more runoff than TP-40 rainfall. It is likely that the differences result from the fact that the model was calibrated to an extreme rainfall event. Two modifications were made to calibrate the model to the August 1987 event which may directly affect how the model predicts runoff during the lower recurrence interval events.

In the first modification, the capacities of some storm sewers adjacent to the creek were increased to better match the observed hydrograph at Washington Boulevard. This adjustment was justified because during an extreme event, depressional storage and ponding areas fill up and overflow, allowing runoff to travel by overland flow paths to the creek. During a smaller event, storage in the physical subbasin may not fill up and result in overland flow, whereas the HEC-1 model may still be letting flow out of the subbasin at an increased storm sewer flow rate. This may overestimate the resulting peak flows and creek stages for the lower recurrence interval events.

A second modification that was made to calibrate to the August 1987 event was changes to Clark's storage coefficient, which also relates to storage in the subbasin. The coefficient was decreased to increase the peaks to match the extrapolated peak on the observed hydrograph. In a lower recurrence interval event such as a 2- or 5-year event, local storage in each subbasin is more significant such that an increased storage coefficient may be more appropriate for more frequent, less intense, rainfall events. Hence the decreased storage coefficient, selected through calibration of an extreme event may not completely account for storage lags during the more frequent events. These two modifications can be adjusted in the HEC-1 model if more detailed analyses are required for the lower frequency events. Comment cards in the HEC-1 model identify these subbasins with higher storm sewer capacities to account for overland flow during extreme events.

HYDRAULIC ANALYSIS

The Addison Creek HEC-2 model was constructed using field surveyed channel and bridge cross-sections provided by IDOT-DWR. Approximately 350 cross sections and 50 bridges were included in the model. Manning roughness coefficients (n-values) were determined during field inspections of the creek. Roughness coefficients varied from 0.03 to 0.075 in the channel and from 0.05 to 0.95 in the overbank. Ineffective flow areas (wide,

shallow flooding and building areas) were blocked-out by using n-values equal to 10 in these areas. This approach allows floodplain storage to be determined by the model but limits the effective flow area to the area immediately adjacent to channel which actually transmits flow.

Peak flows estimated in HEC-1 were taken at critical durations and placed into the HEC-2 model to develop flood profiles. The flood stages predicted by the HEC-2 model during the 100-year event appear reasonable and correlate well to observed high water marks from the August 1987 event. Stages appear slightly high for the 2-, 5-, and 10-year events because of higher flows than those in the FIS's. The HEC-2 input data is provided in Appendix E, along with plotted flood profiles for the 2-, 5-, 10-, 25-, 50-, and 100-year events.

RP/IDOT/AF5

CHAPTER 6

EVALUATION OF RESERVOIR OPERATIONS

INTRODUCTION

The eight flood control reservoirs were evaluated to determine their operational effectiveness both during the flood and when they are dewatered. During the flood, the reservoirs were analyzed to determine how they fill up and the level of protection they provide. Dewatering of the reservoirs was analyzed to determine if the current pumping operations cause downstream flooding.

DESCRIPTION OF EXISTING FLOOD CONTROL RESERVOIRS

The following are descriptions of existing operational plans for the eight flood control structures in the Addison Creek watershed. The plans are described based on meetings with reservoir operators, reservoir reports and design plans, and field inspections. Summary descriptions of the reservoirs are presented in Appendix F. Reservoir schematics which provide a plan view of the reservoir and details of the bypass/spillway components are also presented in Figures 3 through 10 in Appendix B.

William Redmond (George Street) Reservoir

The William Redmond Reservoir, presented in Figure 3, is operated by the Village of Bensenville, and has two gravity inlets - a north inlet and a west inlet - and a pumped outlet which discharges directly into Addison Creek. The capacity of the reservoir is 735 acre-feet (AF) at the maximum high water elevation of 657 feet. A normal pool elevation of 631 feet maintains an approximately 5-foot deep pool and results in 685 AF of available flood storage volume.

The north inlet has a 60-inch by 38-inch elliptical concrete bypass pipe which carries low flows around the east side of the reservoir to Addison Creek. The bypass pipe carries a base flow of 4.5 cfs from the Bensenville Wastewater Treatment Plant. A gate structure on the upstream end of the north bypass pipe is occasionally closed during dry periods to allow the bypass flows to enter the reservoir to increase the dissolved oxygen in the normal pool for the fish. During rainfall events, the gate is not operated. A flap gate at the downstream end of the bypass prevents backflow during high stages or pumping. Runoff that cannot enter the bypass pipe enters the reservoir through a 25-foot wide inlet spillway.

The west inlet has twin 42-inch reinforced concrete bypass pipes that pass low flows around the south side of the reservoir to Addison Creek. As with the north bypass, the west bypass has a gate structure at the upstream end and a flap gate at the downstream end. The gate at the upstream end is generally not operated but can be used for emergency or maintenance purposes. Flow that cannot enter the west bypass pipe enters the reservoir through a 20-foot wide inlet spillway.

An emergency spillway was not constructed at William Redmond reservoir. However, discharges in excess of the reservoir capacity flow out of the reservoir east of the pump house, across George Street to Addison Creek.

Runoff collected in the reservoir is pumped into Addison Creek by a 10 cfs pump. Two 50 cfs pumps are available to dewater the reservoir, but typically are not used because they may produce flooding downstream in the golf course. The 10 cfs pump automatically turns on when the reservoir pool level rises above elevation 632 feet. When a heavy rain occurs, the 10 cfs pump will shut off when stages on Addison Creek rise. The shut off sensor is downstream of George Street. Usually the 10 cfs pump is manually shut down by the reservoir operator.

Dewatering of the reservoir usually begins a day or two after the flooding subsides, when flows no longer pass over the inflow spillways and when Addison Creek is within its banks downstream of George Street (Donohue, July 23, 1987). For ordinary rainfall events (less than 1-year), the reservoir can be pumped down to normal pool level (631 feet) within five days using the 10 cfs pump.

SCS Structure No. 86

SCS Structure No. 86, presented in Figure 4, is currently operated by the City of Northlake. A permanent pump station and diversion structure are planned for the reservoir but not yet constructed. When these improvements are complete, MSD will operate and maintain the reservoir. Structure No. 86 is comprised of a side channel reservoir with a gabion spillway on the right bank of Addison Creek. When stages in Addison Creek rise above elevation 647.0 feet, flow spills into the reservoir. Initially, a free flow condition exists through the spillway. When the water level in the structure reaches 647.0 feet, the inflow to the reservoir continues at a rate less than the free flow rate because of submergence of the spillway. Once the flood peak passes, outflow from Structure 86 will occur until the water level in the reservoir reaches elevation 647.0 feet. Currently, a portable pump is brought to the site and the remaining water is

pumped out of the reservoir about two or three days after the rainfall event has ended, when Addison Creek is within its banks downstream of the reservoir (Donohue, July 28, 1987).

The overall capacity of Structure 86 is 355 AF at the maximum high water elevation of 651.7 feet. This total capacity is somewhat misleading for two reasons. One reason is that the water level in the structure cannot exceed the water level in the creek. Since the water level in the creek has virtually no chance of exceeding 650.0 feet the storage capacity above 650.0 is basically ineffective.

The second reason is that any storage above the spillway crest elevation (647.0 feet) is temporary storage. Storage at the spillway crest is 285 AF. The 70 AF of storage between the spillway crest and the maximum high water elevation does help to attenuate peak flows in Addison Creek, but not as effectively as the storage below the spillway crest.

York Road and I-90 Interchange Reservoir

The York Road/I-90 Reservoir, presented in Figure 5, is a "gravity-in", "gravity-out" reservoir constructed in the interchange. The reservoir is owned and maintained by the Division of Highways. Two 24-inch reinforced concrete pipes (RCP) serve as

the outlet from the reservoir, but are controlled by the capacity of one 24-inch RCP downstream. There are a number of inlets to the southern portion of the reservoir which drain to a 36-inch RCP connected to the northern portion of the reservoir. The northern portion has a number of additional inlets. Outflows are collected in two concrete lined ditches located south and west of the outlet structure. The two ditches flow into a 24-inch RCP storm sewer which flows north along York Road. The capacity of this storm sewer controls outflows from the reservoir. During an event that exceeds the capacity of the reservoir, ponding would be expected on York Road and in the area adjacent to the reservoir until flows recede or are able to follow natural drainage paths to the creek.

The capacity of the York Road/I-90 Reservoir is 18 acre-feet at the maximum high water elevation of 682.0 feet.

Arlington Cemetery Reservoir

Arlington Cemetery Reservoir, presented in Figure 6, is operated and maintained by the City of Elmhurst. The reservoir has a 24-inch RCP low flow bypass which outlets to an open channel before it passes through a 13-foot by 4-foot box culvert under County Line Road. A gate structure at the upstream end of the bypass is provided for maintenance and for the prevention of

backflow into the reservoir during dewatering. It is normally not utilized during a flood event. A small amount of base flow normally enters the bypass pipe from the lake at the Maywood Sportsman's Club. Flow that cannot pass through the bypass pipe enters the reservoir through a 15 foot wide inlet spillway.

An emergency spillway is located near the outlet of the bypass pipe. Flows passing over the spillway enter an open channel upstream of the box culvert under County Line Road.

Runoff stored in the reservoir can be pumped out by three 3 cfs pumps which discharge into the 24-inch bypass pipe. The 24-inch pipe outlets into an open ditch upstream of the County Line Road culvert where flows then travel to Railroad Avenue Reservoir. The pump switches are manually operated and the pumps are not turned on until the flooding has receded (Donohue, July 27, 1987). Two pumps are usually operated to dewater the reservoir.

The capacity of Arlington Cemetery Reservoir is 66 acre-feet at the maximum high water elevation of 656.0 feet.

Railroad Avenue Reservoir

Railroad Avenue Reservoir, presented in Figure 7, is operated by the City of Northlake. Three 60-inch RCPs discharge to the Railroad Avenue Reservoir site. There is a low flow bypass around the reservoir and an open inlet spillway to the reservoir.

The bypass begins as an open channel and then transitions to a 30-inch RCP and then to a 38-inch by 24-inch elliptical concrete pipe which passes under Railroad Avenue toward Addison Creek. A manually operated gate structure controls flows entering the upstream end of the 30-inch RCP. Under normal conditions, this gate is open and was intended to be used only for emergency and maintenance purposes. Under current operations, when a heavy rainfall begins, the gate is closed and all flow enters the reservoir. The gate remains closed until the reservoir is emptied (Donohue, July 28, 1987).

The reservoir has a gravity drawdown structure which can dewater the top five feet of the maximum pool. A gate at this structure remains closed during a rainfall event and is not opened unless the pool elevation in the reservoir exceeds 647.0 feet. Currently, the gate is not operational and has a hole in it. When the gate is opened, released flows enter the bypass pipe at a

junction box located where the 30-inch RCP changes to the 38-inch by 24-inch elliptical pipe which carries the discharge to Addison Creek via storm sewer.

An emergency spillway is near the drawdown structure and overflows into an open channel upstream of Railroad Avenue. From this channel, overflow can enter the 38-inch by 24-inch bypass pipe through a grated junction box. If the overflow exceeds the capacity of the bypass pipe, flow can pass through the elliptical culvert at Railroad Avenue to an open channel. At the downstream end of the channel, there is another grated junction box where flows can enter the 38-inch by 24-inch pipe. Flows that cannot enter the pipe will then be stored in the channel or travel overland to Addison Creek.

Runoff that is stored in Railroad Avenue Reservoir is released by pumping. The pump station has three 3 cfs pumps which discharge into the bypass channel. Pumping of the reservoir is usually not begun until the flooding has ended and the reservoir outfall at Addison Creek is no longer submerged (Donohue, July 28, 1987).

The capacity of Railroad Avenue Reservoir is 37 acre-feet at the maximum high water elevation of 652.0 feet.

Doyle (Northlake) Reservoir

Doyle Reservoir, presented in Figure 8, is operated by the City of Northlake. The reservoir has four inlet structures; three are uncontrolled, and one can be controlled by a gate structure at the reservoir. No emergency spillway is provided at the reservoir. The top nine feet of the reservoir can be gravity drained while the remainder of the volume must be pumped.

Two of the reservoir inlets are at the northwest corner of the reservoir and are called the "NW Structure." A 72-inch pipe and a 60-inch RCP outfall at this location through a spillway which discharges into the reservoir. The 60-inch RCP has an 8-inch RCP bypass which allows low flows to enter the North Avenue storm sewers instead of entering the reservoir. The 72-inch pipe is the outlet for the County Line sewer from Elmhurst and has a 12-inch bypass which sends low flows to the North Avenue storm sewers. At the outfall spillway to the reservoir, the 72-inch pipe invert is approximately 13.5 feet higher than the invert of the 60-inch RCP.

The third inlet, a 42-inch RCP, is at the southwest corner of the reservoir where it outfalls into Doyle Reservoir. Flows to this "SW Structure" come from the Lake Street storm sewer system when the capacity of the sewer is exceeded.

The fourth inlet to Doyle Reservoir is a 42-inch RCP at the pump station in the southeast corner of the site. Flows through the pipe are controlled by a gate at the pump house. During a rainfall event, this gate can be opened and backflow from the Lake Street storm sewer can enter the reservoir. After the storm event has ended, the 42-inch RCP also serves as the gravity drain for the reservoir to approximately elevation 645 feet. At the present time, the 42-inch RCP is only used as a gravity drain and is not opened during rainfall events.

Three 3 cfs pumps discharge the stored runoff into the 42-inch outlet pipe which sends water to the Lake Street storm sewer, the Lake Street Interceptor and eventually Addison Creek. The pumps are not turned on at any specific time, flow, or elevation. Typically, the pumps are operated a day or two after the storm event or when the threat of flooding is judged to have subsided (Donohue, July 28, 1987).

When the Doyle Reservoir capacity is reached, flows pond in the Lake Street and North Avenue underpasses.

The capacity of Doyle Reservoir is 73 acre-feet at the effective high water elevation of 653.0 feet. Above elevation 653.0 feet, surcharging of the upstream system occurs, which can result in ponding in the viaducts. Based on limited topographic

information, if the viaducts were to pond to a depth of four feet and the reservoir were to fill to the overtopping elevation of 658.0 feet, up to 50 acre-feet of additional storage would be provided.

Lower Elmhurst Reservoir

Existing Structure

The Lower Elmhurst Reservoir requires no specific operation in its present configuration. Data on the existing structure are very limited. Stormwater that cannot flow north to Doyle Reservoir through the County Line Sewer flows to a 60-inch RCP at the Lower Elmhurst Reservoir. Low flows are bypassed through twin 36-inch RCPs which outfall into a forebay. Flows then enter a 54-inch RCP and a 48-inch RCP which send flow to the Proviso railroad yard. When stages in the forebay increase, flow in one of the 36-inch RCPS can be diverted into the Lower Elmhurst Reservoir through a 60-inch RCP. This pipe also serves as the gravity outlet of the reservoir. There is no emergency spillway, but inflows have the potential of overflowing the low flow bypass structure to the 54-inch and 48-inch outlet culverts.

The capacity of the existing Lower Elmhurst Reservoir is 20 acre-feet at the maximum high water elevation of 666.0 feet.

Proposed Structure

The proposed Lower Elmhurst Reservoir is presented in Figure 9. A gate in the County Line sewer will divert the majority of the flows from subbasins 123 and 124, which currently flow to Doyle Reservoir, to the proposed Lower Elmhurst Reservoir. A proposed inlet structure is to be enclosed by concrete headwalls on three sides, while an earthen bank will form the fourth side. Inflow to this structure will come from two 60-inch RCP sewers. Under low flows, water will leave the inlet structure through a 36-inch RCP outlet which is to have an invert elevation of 658.5 feet. An overflow weir with crest elevation of 661.5 feet will permit flow from the inlet structure to enter the lower pool. At this water level, 661.5 feet, the outflow through the 36-inch RCP will be approximately 27 cfs, hence, most flow in excess of 27 cfs would divert into the Lower Elmhurst reservoir.

Initially, the diverted water will fill both the lower and upper pools. The sluice gate between the pools is to be closed when the pool elevations reach 660.8 feet. At this point, the lower pool alone would continue to fill. When the lower pool reaches 661.0 feet, pumping to the upper pool will begin at a rate of 50 cfs. The pumping rate will increase to 100 cfs at elevation 661.4 feet, to 150 cfs at 661.8 feet, and to 200 cfs at 662.2 feet. The nominal capacity of the lower pool is 17.8 acre-feet at elevation 664.0 feet, the elevation of the emergency spillway.

The upper reservoir receives only pumped inflows. The proposed upper pool capacity is to be 86 acre-feet.

The lower pool will discharge initially over the inflow weir and, at lower elevations, through a 24-inch diameter outlet into the inlet structure and then out through the 36-inch opening in the emergency weir. A flap gate on the 24-inch outlet will prevent backflow and allows for outflow only when the water level in the inlet structure falls below that of the lower pool. This system will limit the outflow rate to the capacity of the 36-inch pipe, which is approximately 27 cfs at elevation 661.5 feet. If outflows exceed this capacity, an emergency weir at elevation 664.0 feet will provide more outflow capacity.

The upper pool will drain to the lower pool through a sluice gate inside the pumping station. The one foot wide sluice gate will open automatically when the lower pool falls to elevation 660.4 feet. The gate opening depends on the upper pool elevation.

The proposed schedule of gate openings effectively restricts outflows from the upper pool to the capacity of the lower pool outlet. The upper pool can drain by gravity to an elevation of 660.25 feet. The gravity draining of the upper pool occurs at a rate of 0 to 24 cfs, depending on the sluice gate opening. A

250 gpm sump pump is to be used to remove remaining water from the upper pool and the pump house. As in the inflow operation, the sluice gate will shut automatically if the lower pool elevation should rise to 660.8 feet during dewatering. Outflows from the lower pool would range from 20 to 30 cfs unless the level in the outlet pool rises above 664.0 feet, where the emergency weir would allow more outflow.

Based on an average outflow capacity of 18 cfs, dewatering of the lower reservoir can be accomplished in about 12 hours and the upper reservoir in about 57 hours.

Hillside Retention Reservoir

The Hillside Retention Reservoir, presented in Figure 10, was constructed by MSD and is operated by the Village of Hillside. The reservoir has two inlet spillways, one at the north side of the reservoir, and one at the south side of the reservoir. Each spillway has a bypass pipe which flows to the wet well of the pump station on the south side of the reservoir. The bottom elevation of the wet well is 595 feet. When water in the wet well reaches elevation 602 feet, one of two 5 cfs pumps turns on. At elevation 603 feet, the second 5 cfs pump turns on. Both pumps shut off at elevation 605 feet.

Two 5 cfs pumps and one 16 cfs pump are available for dewatering, but only one 5 cfs pump and the 16 cfs pump are typically used to avoid causing flooding downstream. During dewatering, the larger pump shuts down at elevation 599 feet. The 5 cfs pump shuts down at elevation 598 feet and must be manually reset by the operator. Emptying of the reservoir for frequent rainfall events occurs within 48 hours after the event (Donohue, August 23, 1988 and September 6, 1988).

Based on discussions with the reservoir operator and the review of the storm sewer maps, it appears that the north spillway handles solely stormwater runoff while the south spillway handles stormwater and a base flow which originates from a natural spring at the lake in the Queen of Heaven Cemetery. The base flow was approximated to be 0.5 cfs.

The capacity of the Hillside Retention Reservoir is 120 acre-feet at the maximum high water elevation of 636.0 feet.

EVALUATION OF RESERVOIR FILLING AND DEWATERING OPERATIONS

There are two critical times during reservoir operation when there is the potential for the reservoirs to operate inefficiently or to cause undesirable impacts downstream. These two time periods are during the flood (filling) and after the flood (dewatering). During the flood, the concern is whether there is

a more efficient way to operate the reservoir (other than increasing capacity) that would more effectively control flooding problems. After the flood, the concern is whether the method of dewatering (pumping or gravity drained) further contributes to downstream flooding.

"As-built" highwater elevations and flood storage capacities were developed based on the as-built plans, topography and survey data provided by IDOT. Table 3 presents this data and the estimated level of protection or storm event that would be expected to fill the reservoir. With only one or two exceptions, the as-built storage volumes are similar to the design storage volumes presented in Table 1.

The levels of protection presented in Table 3 may be lower than those previously identified during design. These differences may be attributable to several factors. First, it is suspected that the original design capacities were computed using TP-40 rainfall data as opposed to the higher TL-13 rainfall data used in this study. TL-13 data produces significantly higher rainfall volumes than TP-40, especially during extreme events. Second, the reservoirs may not have been built as originally planned or designed, both in terms of capacity and inlet/bypass configuration. This was determined to be the case for Structure 86 which was not constructed as deep as designed. And third, the critical

TABLE 3

RESERVOIR AS-BUILT STORAGE CAPACITIES, HIGHWATER ELEVATIONS AND LEVEL OF PROTECTION

Reservoir	Maximum Storage ac-ft	Maximum Water Level feet	Water Level Limitation	Level of Protection
William Redmond	685*	657.0	Overtops	50-yr.
Structure 86	355	651.7**	Overtops	50-yr.
Railroad Avenue	37	652.0	Spillway	2-yr.
Arlington Cemetery	66	656.0	Spillway	25-yr.
York Road/I-90	18	682.0	Overtops	5-yr.
Doyle (Northlake)	73	653.0	Surcharges Inlet	5-yr.
Lower	18	664.0	Spillway	10-yr.
Elmhurst (Proposed)	86	678.0	Spillway	
Hillside	120	636.0	Spillway	10-yr.

---

* Excludes 50 ac-ft permanent pool.
** Effectiveness severely limited above 647.00 ft.

RP/IDOT/AG3

duration of the rainfall events and other rainfall-runoff parameters are likely to have been appreciably different than those used in this study. In fact, several of the flood control reservoirs were developed to control high peak flows produced during short duration events rather than long, high volume events. The following section specifically discusses the performance of each reservoir during the flood event.

Evaluation of Reservoir Filling Operations

William Redmond

The as-built storage capacity of William Redmond Reservoir is estimated to be 685 acre-feet compared to a design storage capacity of 635 acre-feet.

During the 100-year event, the reservoir fills and is overtopped, and outflows would be expected to flow over George Street and back to Addison Creek. Such overtopping was known to occur during the August, 1987 event. During the 100-year event, when the incoming peak flow arrives at the reservoir, there is little remaining storage capacity available, resulting in overtopping. The reservoir is able to store the 50-year rainfall event, thus providing a 50-year level of protection.

There are no operational changes that can be made to the bypass/inflows that will have any significant impact in reducing flows in the downstream system. Increasing the bypass rate at the reservoir may give it 100-year capacity and better catch the incoming flood peak, but would in turn cause additional downstream flooding. Decreasing the bypass without providing additional storage will result in the reservoir filling and overtopping even sooner. Hence, the only way to further reduce downstream flooding would be to increase the reservoir capacity. This physical modification will be considered in Chapter 8.

Structure 86

The as-built storage capacity of Structure 86 is 355 AF compared to a proposed design capacity of 360 AF. During the 100-year event, the structure fills to the spillway crest (647 feet) before the arrival of the flood peak and only has a storage capacity to effectively hold the 50-year event. Although the reservoir is reducing flood flows downstream, it could function more effectively to reduce flows during the peak of the event and reduce flooding downstream.

There are two ways to make Structure 86 operate more efficiently during the flood and further reduce downstream flooding. The first is to raise the spillway crest. The second is to enlarge the structure through additional excavation.

Raising the spillway crest by itself will increase the ability to store the peak part of the 100-year event by effectively reducing the inflow and increasing the bypass rate. The net result is that the level of protection the structure provides during the lower events will be reduced. Additional excavation may also have a significant impact on reducing downstream flooding by providing additional capacity to store flows during the peak of the 100-year event provided land is available for the necessary enlargement. These options will be evaluated in Chapter 8.

Railroad Avenue Reservoir

The as-built storage capacity of Railroad Avenue Reservoir is 37 AF. The reservoir first fills above the spillway crest during the 2-year event, based on current operation of the bypass gate. For events greater than the 2-year, the reservoir provides little or no peak attenuation. Outflows from the reservoir enter an open channel upstream of Railroad Avenue and eventually reach Addison Creek by pipe and overland flow.

To more effectively control downstream flooding, the reservoir would have to operate to further limit flows, especially during the peak of the events. However, operational modifications to make the reservoir more effective do not appear to be feasible because there is no room to provide the additional required

storage capacity at this site. Increasing the bypass rate beyond the design bypass flow of 25 cfs to effectively increase the storage capacity is not practical because the downstream system cannot handle any significant increase in flow.

The present operation of the reservoir results in a 0.0 cfs bypass during any significant rainfall events because the bypass gate is closed. This mode of operation provides additional protection to the downstream drainage system during minor events because all flow is diverted into the reservoir. However, this practice causes the reservoir to fill faster than it normally would, limiting its effectiveness in controlling flows during the more critical peak period of the event. It may be possible to effectively increase the flood storage capacity by maintaining the design bypass rate of 25 cfs during the flood events. This operation change will be evaluated in the next chapter.

Arlington Cemetary Reservoir

The as-built capacity of Arlington Reservoir is estimated at 85 acre-feet compared to a design capacity of 71 acre-feet. The hydrologic analysis shows that the reservoir has the capacity to hold the 25-year event. During the 100-year event, the reservoir is full when the peak arrives and the incoming flow is not significantly attenuated. Flows pass over the emergency spillway

and enter an open channel upstream of County Line Road and eventually reach Addison Creek through the same overland flow paths and culverts that the outflows from Railroad Avenue Reservoir travel through.

The Arlington Reservoir could operate more effectively if it could better attenuate the peak flow during the 100-year event by providing available storage capacity at the time the peak flow arrives. This can be accomplished by increasing the bypass rate or providing additional storage. Because an increase in the bypass will send more flow to the Railroad Avenue Reservoir, increasing the bypass is not a practical way to increase the capacity of the Arlington Reservoir. The available capacity of Arlington can only be increased by providing additional storage capacity through expansion of the reservoir. Since, there is no available land to expand Arlington, there is no practical way to increase the storage capacity of Arlington.

York Road/I-90 Reservoir

The as-built storage capacity of the York Road/I-90 Reservoir is 18 acre-feet which is the same as the original design capacity. The hydrologic analysis indicates it has a 5-year capacity. During the 100-year event, the reservoir is overtopped, releasing approximately 20 cfs. The gravity outflow crosses York Road and

is controlled by the downstream system capacity, thereby causing ponding downstream and in the area around the reservoir. Providing additional capacity to raise the level of protection provided by the reservoir is not feasible because no land is available for expansion. Because of its location in the watershed, the York Road/I-90 Reservoir has little effect on flood stages on Addison Creek.

Doyle (Northlake) Reservoir

The as-built storage capacity of Doyle Reservoir is 73 acre-feet compared to a design capacity of 70 acre-feet. The hydrologic analysis indicates the capacity is first reached during the 5-year event. During the 100-year event, the structure is full when the incoming peak arrives. Excess flow escapes into the adjacent viaducts. Outflows which cannot enter the Lake Street storm sewer travel overland down Lake Street, eventually reaching Addison Creek.

To make Doyle operate more effectively, additional storage capacity should by provided. However, there is no available land to expand the existing reservoir capacity.

For the existing conditions, the bypass and inflow rates appear reasonable. Increasing the bypass would further tax the Lake Street storm sewer. Decreasing the bypass rate without increasing the capacity would only fill and overtop the structure earlier. For the existing conditions, the structure appears to be functioning as effectively as is possible and no operational or physical changes will be considered.

Lower Elmhurst

The Lower Elmhurst Reservoir was modeled as proposed in the Lower Elmhurst Reservoir Project Planning Study, January, 1986. The design storage capacity of the lower and upper pools are 18 and 86 acre-feet, respectively.

The hydrologic analysis predicts that the upper and lower reservoir pools fill during the 10-year event. During the 100-year event, the structure is full or nearly full when the incoming peak arrives. During the 2-, and 5-year events, the structure provides significant peak reduction. Outflows travel through a system of culverts and open channels in the Proviso railroad yard. There may be some ponding and storage resulting from these flows in the railroad yard.

No additional land is available to expand the proposed or existing volume. The bypass rate as proposed is reasonable and should not be modified since the capacity cannot be expanded without significant downstream improvements.

Hillside Reservoir

The as-built capacity of Hillside Reservoir is 120 acre-feet at a maximum high water elevation of 636.0 feet. The hydrologic analysis predicts the reservoir has the storage capacity to contain the 10-year event. During the 100-year event, the structure is full when the peak inflow arrives, resulting in overflow conditions. When the structure is overtopped, flows pond adjacent to the reservoir and upstream in subbasin 181. Eventually, flows can pass under Roosevelt Road through culverts and enter an open channel along the south side of the road. The open channel empties into Addison Creek.

There is no available land to expand the existing capacity of the reservoir. Increasing the bypass rate would provide more storage for larger events, but the increased bypass may cause additional downstream flooding in the open channel along Roosevelt Road. No major operational or physical changes are warranted for Hillside Reservoir.

Evaluation of Reservoir Dewatering Operations

The majority of the flood control reservoirs are dewatered by manual or automatic pump operation. York Road/I-90 and Lower Elmhurst Reservoirs are the exceptions, being dewatered by gravity outlet structures. The current dewatering operations are summarized in Table 4, which presents rated pump capacities and corresponding dewatering times. Rated pump capacities are based on a specific design water level in the reservoir and a desired flow rate. Typically, the rated capacities, which were determined during design, have been based on the reservoirs being empty rather than full. During those times when the reservoirs have significant depths of water in them, the pumps will operate differently than designed and are likely to discharge at a flow rate greater than the rated capacity. During the initial stages of dewatering, the resulting larger pumped outflows could shorten dewatering times, but also could exceed downstream system capacities.

The rated pumped outflow capacities are generally 9 to 10 cfs. At these dewatering rates, all but one of the reservoirs are emptied in anywhere from one to four days. If only the 10 cfs pump is used to dewater William Redmond Reservoir, it could take up to a month to empty. Although the larger 50 cfs pumps can be used to facilitate the dewatering after the threat of flooding

Reservoir	Method of Dewatering (1)	Rate of Dewatering(5)	Estimated Time to Empty (2)	Outflows To:
William Redmond	Pump	110 cfs (3)	75 days	Addison Creek at structure
Structure 86	Portable Pump	5 cfs	29 days	Addison Creek at structure
York Rd/I-90	Gravity	10 cfs	24 hours	Concrete channel to 24" storm sewer along York Rd. flowing north.
Arlington Cemetery	Pump	9 cfs	90 hours	13' x 4' box culvert under Tri-State leads to Railroad Reservoir
Railroad Avenue	Gravity and Pump	9 cfs	56 hours	38" x 24" elliptical storm sewer under Railroad Ave. and east to creek.
Doyle	Pump	9 cfs	98 hours	Lake St. sewer
Lower Elmhurst (As proposed)	Gravity	18 cfs	57 hours	54" and 48" RCP sewers beneath Proviso Railroad yard.
Hillside	Pump	26 cfs (4)	56 hours	Open channel along south side of Roosevelt Road.

Notes:
(1) - All pumps are started at operator discretion except Redmond Reservior has one 10 cfs pump that starts automatically. Generally, dewatering begins 1 to 2 days after a major storm event.
(2) - Based on full reservior at dewatering rate shown.
(3) - Often neither 50 cfs pump is used, resulting in 10 cfs dewatering rate.
(4) - In most instances the pumping rate is 21 cfs.
(5) - Pumped outflows are based on rated pump capacities and may increase depending on operating head.

RP/IDOT/AC1

downstream has subsided and flows are well within bank, they are normally not utilized because their operation may cause the creek to exceed its banks in the downstream golf course.

The current pumping operations were analyzed to determine whether the dewatering contributes to downstream flooding. To evaluate the current pumping operations, a rating curve was developed at a defined control point downstream of the reservoirs to determine the critical flow or stage at which dewatering could begin. It was assumed that dewatering could not take place until the flood was within the channel banks.

Flood hydrographs were examined to predict how long it takes for the stages in the creek to drop below the bank elevations. This analysis indicates that stages drop below the average bank elevation in 12 to 24 hours depending on the location in the watershed. Since none of the reservoirs are pumped until a day or two after the storm, it is concluded that current pumping operations do not contribute to further downstream flooding. Furthermore, the magnitude of the pumped outflows are insignificant compared to the flows in the creek.

The only potential problem with the existing dewatering operations is the possibility of restoring and re-pumping of outflows from the reservoirs which operate "in series", such as Arlington with Railroad and William Redmond with Structure 86. After a storm event, flow arriving at Railroad Reservoir consists of base flow runoff from the Sportsman's Club (subbasin 51), base flow runoff from the railroad yard (subbasin 50), and any pumping that might be occurring at Arlington Reservoir. This flow should not exceed the capacity of the bypass pipe at Railroad Reservoir (25 cfs), or flow will be diverted into the reservoir. However, this diversion may be desirable if Railroad Reservoir is being dewatered by the gravity outlet, thus providing for the most rapid dewatering of both reservoirs.

Diversion into Structure 86 occurs when the flow in the channel exceeds 165 cfs. William Redmond Reservoir should not be dewatered until flow at Structure 86 falls below 150 cfs and then only the 10 cfs pump should be used. Flow at Structure 86 would have to be 50 cfs or less before all the pumps at William Redmond Reservoir can be utilized at their rated capacities. Recommended reservoir operation rules are provided in the following chapter.

RP/IDOT/AF6

CHAPTER 7

OPERATIONAL PLANS OF IMPROVEMENT

INTRODUCTION

Operational plans of improvement can consist of modifications to improve either the manner in which a reservoir operates during a flood event (filling) or how it operates during dewatering. Both filling and dewatering operational changes are presented for selected reservoirs.

FILLING OPERATIONS

The filling operations of all eight reservoirs is automatic in nature. With the exception of the proposed upper pool at Lower Elmhurst Reservoir which fills by automatic pumping, the reservoirs are filled by gravity inflows. Any adjustment to operation of the reservoirs with respect to inflows would require physical modifications which are addressed in the subsequent chapter. The lone exception to fully "automatic" operation throughout the system is the bypass gate at Railroad Reservoir. This gate is closed manually at the beginning of each storm, forcing all flow to enter the reservoir. This policy causes the reservoir to

store additional runoff that could be bypassed without causing downstream flooding. During large rainfall events, 10 to 20 AF are stored unnecessarily prior to the peak inflow, depending on when the gate is actually closed. This volume represents 25 to 50 percent of the available storage in the reservoir and is a major reason for its being full when flood peaks arrive at the site. This gate should remain open to fully utilize the available storage capacity of the reservoir.

DEWATERING OPERATIONS

Dewatering operations of the system, presented in Table 5, are controlled both manually and automatically. The York Road/I-90 and existing Lower Elmhurst reservoir dewatering is controlled by gravity outflows and requires no operation. Automatic pumping at William Redmond is usually over-ridden due to a history of flooding problems associated with the pumped flow.

The dewatering of six reservoirs, including Redmond, takes place by manual switch operation of pumps which discharge the stored water directly into the storm sewer system, or in the case of Redmond and Structure 86, into Addison Creek. No strictly observed operating policy exists for the dewatering process. In general, it is accomplished as quickly as possible while taking

precautions against creation of downstream flooding problems. These current operational procedures do not result in any flooding problems in the watershed.

Although not directly related to flooding problems caused by dewatering operations, the pumping of the "in-series" reservoirs (William Redmond/Structure 86 and Arlington/Railroad) must be coordinated to avoid diverting and re-pumping flows at the second in-series reservoir. Critical flows were determined for each downstream reservoir that will prevent double pumping during dewatering.

Based on the existing bypass/diversion structures, the William Redmond Reservoir 10 cfs rated pump should not be operated until the flow approaching Structure 86 falls below 150 cfs. At flows above 150 cfs, pumped outflows from William Redmond will be diverted into Structure 86. Flows at Structure 86 must be less than 50 cfs if all the William Redmond pumps are to be operated at their rated capacities. Use of the 50 cfs pumps may not be possible during the first stages of dewatering because pumped outflows may exceed the rated pump capacities when the reservoir is full.

At Railroad, the flow passing through the bypass pipe must be limited to 25 cfs or flows will be diverted into the reservoir.

Flow through the bypass pipe is comprised of pumped outflow from both Railroad and Arlington, and base flow. The base flow approaching Railroad was estimated by HEC-1 to be 16 cfs. With this base flow, the combined pumped flows of Arlington and Railroad cannot exceed 9 cfs or flow will divert into Railroad Reservoir again. Since each reservoir has three 3 cfs pumps, there is some flexibility in how the two reservoirs can be pumped. Because Arlington is the larger reservoir, one possible scenario is to use all three pumps at Arlington Reservoir if Railroad Reservoir is being dewatered by the gravity outlet. Although the pumped flow from Arlington Reservoir may be diverted into Railroad Reservoir, it will drain through the gravity outlet. When the water level in Railroad Reservoir drops to approximately the midpoint of the gravity outlet pipe, and no flows are being diverted into the reservoir, the Railroad Reservoir pumps should then be turned on incrementally to provide for more rapid dewatering, while assuring that flows are not diverted back into the reservoir. If Railroad Reservoir is not being dewatered by the gravity outlet, one possible scenario is to dewater Arlington Reservoir with two 3 cfs pumps and Railroad Reservoir with one 3 cfs pump. Because pumped outflows may exceed rated capacities when the reservoirs are full, special care should be taken to not exceed 25 cfs at Railroad Reservoir.

Another option that could be considered to increase the rate at which both reservoirs could be pumped is to modify the bypass/diversion structure at Railroad Reservoir. Through modifications to the spillway and diversion overflow elevations, this option would have the effect of increasing the capacity of the bypass pipe, thereby increasing the allowable combined pumping rate. This option requires more detailed analysis prior to incorporation into the operating rules.

Using these principles, appropriate operating rules were developed for each reservoir as shown in Table 5. The operating values are similar to the current reservoir dewatering operations with the exception of those changes required to prevent double pumping at "series" reservoirs. The operating rules assume the pumps will be operated at the rated pump capacities.

RECOMMENDED OPERATING RULES FOR DEWATERING RESERVOIRS WITH PUMPED OUTFLOWS

Reservoir	Critical Location with Respect to Outflow	Pumping Restrictions
William Redmond	Structure 86 Inlet	Flow upstream of Structure 86 should be 150 cfs or less (Elev. 646.50) to operate 10 cfs pump. Flow at Structure 86 should be 50 cfs or less to operate all pumps. However, operating all pumps will result in ponding in the golf course.
Structure 86	Addison Creek Downstream of Structure	Portable pump; 5 cfs capacity
Arlington Cemetery	Railroad Ave. Reservoir bypass	Sum of Arlington pumping, base flow, and Railroad pumping should not exceed capacity of Railroad outlet sewer which is 25 cfs.
Railroad Ave.	30" RCP Reservoir Bypass	Should not be pumped while Arlington is being pumped unless combined pumping at both locations does not exceed 9 cfs (The 9 cfs limitation is based on an assumed base flow of 16 cfs). Outlet sewer flow including pumping must not exceed 25 cfs.
Doyle	Lake St. sewer	Should not cause flow in Lake Street sewer to exceed 38 cfs. Outlet of sewer to creek must not be submerged.
Hillside	Open channel on south side of Roosevelt Road	According to operator, using all three pumps (26 cfs) causes some downstream flooding.

RP/IDOT/AC4

CHAPTER 8

PHYSICAL PLANS OF IMPROVEMENTS

INTRODUCTION

Chapter 6 identified several operational or physical deficiencies that if corrected would increase the efficiency of reservoir operation or further reduce flooding along critical reaches of Addison Creek. Several physical modifications to the system were conceptualized and evaluated to determine their effectiveness. These modifications were of two general classifications being either modifications of reservoir structures or channel improvements. The potential benefits resulting from these proposals were evaluated primarily in terms of reduction of peak flows and stages or in improved level of protection for reservoirs. Ideally, this evaluation would be in terms of the economic benefits of the modifications. Because the relationships between flood elevation and damages at locations along the creek were not evaluated, stage and flow reductions were used to qualitatively assess the effectiveness and benefits of the proposed physical improvements. Further detailed analyses to determine economic

benefits should be determined in subsequent Phase III investigations.

The effectiveness of each potential modification is evaluated at appropriate critical reaches downstream of the reservoir called control points. Control points are identified in Figure 11.

MODIFICATION OF RESERVOIR STRUCTURES

Peak flows and stages could be reduced through modification of the bypass or diversion structures at any of the reservoirs in the system. These modifications will often lead to increased storage requirements. Thus, this modification must be considered along with changes to bypass and diversion structures. Furthermore, the possibility of constructing a new detention structure in the watershed was also considered.

The locations where modified bypass and diversion structures were considered were limited to William Redmond and Structure 86 because no other structure could be expanded to obtain the additional storage capacity that would be required to achieve significant flow reductions. These structures are more likely to be beneficial if modified because they are located on the creek. One location was identified as being a potential site for an additional detention basin. This preliminary site location is in

the Proviso railroad yard just south of Lake Street and will be called Proposed Structure 92 consistent with previous watershed investigations by SCS. The following six potential reservoir modifications were evaluated:

1. An increase in the capacity of William Redmond Reservoir.
2. An increase in the capacity of Structure 86.
3. Consideration of Proposed Structure 92.
4. A decrease in the bypass flow at William Redmond Reservoir with a complementary increase in capacity.
5. A decrease in the bypass flow at Structure 86 with a complementary increase in capacity.
6. A modification to raise or lower the diversion spillway at Structure 86.

Not all alternatives were evaluated fully if initial investigations showed that the modifications were in fact, unrealistic or counter-productive relative to the objective of reducing flood peaks.

To assess the potential benefits of flow and stage reductions in the watershed, four control points were selected to evaluate the six potential physical modifications to the reservoirs. The resulting preliminary evaluations of these proposals based on their effectiveness in reducing flood peaks and stages are summarized in Table 6. Further detailed analyses in Phase III will be required to determine actual benefits resulting from these improvements.

Increase the Capacity of William Redmond Reservoir

The Village of Bensenville has prepared a preliminary design for increasing the capacity of William Redmond Reservoir from 685 AF to 800 AF. Evaluation of the proposed reservoir expansion showed little improvement for the 50-year event since the structure already has 50-year capacity. However, the peak flow of the 100-year event was reduced by 190 cfs at control point A and the peak stage was reduced by 0.4 feet. Thus, this expansion has a significant positive impact on reducing flood flows.

Increase the Capacity of Structure 86

The original design for Structure 86 called for more excavation than was actually provided in constructing the reservoir. The actual bottom elevation is 10 feet above the proposed design

TABLE 6

FLOOD LEVEL REDUCTIONS THROUGH PHYSICAL MODIFICATIONS

Modification	Control Point	Reduction in Flow or Stage for Proposed Improvement (48-hour storm unless otherwise noted) 50-year Flow (cfs)	50-year Stage (ft)	100-year Flow (cfs)	100-year Stage (ft)
Increase Capacity at Redmond to 800 AF	A	20	0.1	190	0.4(1)
Increase Capacity of Structure 86 to 460 AF	B	0	0	171	0.2
Build Structure 92 with 400 AF Capacity	D	415	1.7	197	0.6
Reduce Redmond Bypass to 60 cfs and Increase Capacity to 1,200 AF	A	41	0.2	429	1.0
Same as Above	B	17	0.1	207	0.5

NOTE: (1) - 24-hour storm

R/IDOT/AE7

bottom elevation because of limited available funding for the project at the time it was excavated. Therefore, substantial storage capacity remains undeveloped. Significant lateral expansion of the reservoir is unlikely because of in-place slurry cut off walls and Commonwealth Edison Co. right-of-way.

In its present state, the structure does not have the capacity to store all potential diverted inflow during the 100-year flood. To store all the diverted inflow, 460 AF of storage would be required. With this 100-year capacity in place, peak flows at control point B are reduced by as much as 171 cfs and peak stages by 0.2 feet. If the structure was excavated 10 feet deeper, as originally designed, an additional 40 AF of storage would be provided. However, since lateral expansion may not be feasible, the required 460 AF of storage does not appear to be available at the site.

Construct Proposed Structure 92

A flood control reservoir called Structure 92 was proposed by SCS in a "Floodwater Management Plan, Des Plaines River Watershed" in 1976. The structure was to be located in the Proviso railroad yard adjacent to the creek. The original design was modified for

the present study and was assumed to have a diversion structure similar to that at Structure 86. The flood storage capacity was established at 400 AF.

If this structure were built, peak flows for the 50- and 100-year floods could be reduced by 415 cfs and 197 cfs, respectively. Peak flood stages could decrease by 1.7 feet during the 50-year event and 0.6 feet in the 100-year event at control point D in Bellwood.

Decrease the Bypass Flow at William Redmond Reservoir

The current maximum bypass flow at William Redmond Reservoir is 90 cfs. If the bypass flow was reduced to 60 cfs, a capacity of approximately 1,200 AF would be required to avoid overtopping during the 100-year event. If this capacity could be developed at the site, peak flow reductions during the 100-year event of 250 to 429 cfs at control point A would be possible depending on the duration of the design rainfall event. These significant flow reductions occur not only because of the reduced bypass, but also because the reservoir is provided with the storage capacity to handle the 100-year flood. Corresponding reductions in peak stage could range from 0.5 feet to 1.0 feet.

Expansion of Redmond reservoir to a usable capacity of 800 AF has been proposed by the Village of Bensenville. Since this preliminary design does not, in fact, fully utilize all available storage it is conceivable that the site could be expanded to nearly 1,200 AF. Detailed analysis of the site would be required to determine the maximum available storage. A 1,200 AF William Redmond structure also improves the performance of Structure 86, giving it 100-year capacity without any additional modification.

Decrease Bypass Flow at Structure 86

The original design of Structure 86 called for a diversion dam to be placed in the creek channel just downstream of the diversion spillway. The dam was to have a low flow bypass with a capacity of 60 cfs. The current structure will allow flows of 165 cfs or less to pass without diversion into the reservoir.

An analysis was performed to determine the storage required to limit the bypass flow to 60 cfs. During the 100-year flood, the structure would have to store as much as 1,700 AF. If the capacity were substantially smaller, the flood peak would pass the filled structure without attenuation. Thus, it appears that the 60 cfs bypass rate is not practical for the 100-year event. It is possible, however that the 60 cfs bypass rate provides significant benefits for more frequent events and that the

benefit-cost ratio for these lower frequency events is higher than for the 100-year event. The potential benefits of a 60 cfs bypass rate should be investigated as a part of final design for Structure 86.

Modify the Diversion Spillway Elevation at Structure 86

Structure 86 could be modified to reduce downstream flood flows by lowering the spillway crest elevation. This would increase the diversion rate and thereby decrease the bypass. Such action would reduce the storage capacity as well as increasing the rate at which the structure is filled. In large floods, the structure would reach its capacity earlier in the flood thus reducing its effectiveness. Hence, this modification was given no further consideration.

The spillway crest elevation at Structure 86 could also be raised which would increase its capacity and cause it to divert later in the flood thus increasing the potential for capturing the peak flow during the 100-year flood. Under current conditions, the reservoir is full when the peak arrives. A modified Structure 86 in which the spillway crest was raised one foot was analyzed to determine its impact on reducing flood flows downstream. For the 24-hour event, peak flows increased thus having an adverse effect on downstream flows. Therefore, this modifications was dropped from further consideration.

CHANNEL IMPROVEMENTS AND LEVEES/FLOODWALLS

As an alternative to expanding reservoir capacity, three channel improvement approaches were evaluated to determine the feasibility of containing flood flows within the channel banks. Proposed channel sections were sized to contain the 100-year peak flow with one foot of freeboard. Three approaches were considered:

1. Construct levees adjacent to the existing channel.

2. Construct an improved trapezoidal channel with levees.

3. Excavate a larger trapezoidal channel to reduce stages below the existing channel bank height without levees.

Levees

Levees/floodwalls are a potential improvement that can be used to limit flow to the immediate channel area and prevent widespread overbank flooding. Levees are earthen structures that run parallel to and on either side of the stream, forming a continuous dike that holds flood waters in the channel. Floodwalls serve the same purpose as levees and require less space, but are typically much more expensive.

Levees were sized at two representative flood prone areas based on the water surface elevations for the 100-year event. The objective of the levee design was to minimize land acquisition requirements while observing the minimum design standards. The resulting typical levee section had side slopes of 3:1, a top-width of 10 feet, a height of 6 to 7 feet above existing banks, and a typical easement width of 60 feet from the existing banks on both sides of the channel. An additional set back might also be required if local soil conditions indicate special considerations for slope stability.

Aerial photos and field reconnaissance showed many of the houses to be immediately adjacent to the creek in the flood prone areas. The space required for the levees would significantly infringe on the backyards of these homes. In addition, nearly all the existing bridges would have to be raised or provided with closures to prevent overtopping. For these reasons, levees alone do not appear to be feasible.

Trapezoidal Channel with Levees

A second approach to keep floodwaters within the channel banks is to excavate a trapezoidal channel that would reduce the required levee height and contain flows to the channel area. A trapezoidal channel was initially developed at control point B using a

normal depth flow condition approach. A channel bottom width of 20 feet and side slopes of three horizontal to one vertical (3:1) were assumed to compute the depth of flow. This channel would pass the 100-year event with a water depth of about 7 feet, neglecting backwater from bridges. This depth was more accurately defined by modeling the improved channel with HEC-2 to account for backwater created by existing bridges. The resulting depth ranges from 8.5 to 10.5 feet, with corresponding top widths ranging from 70 to 85 feet, depending on the location of the cross-section within the reach being analyzed. Because these depths still exceed existing channel bank heights, a berm or levee to contain flows to the channel area and eliminate flooding would also be required. The overall width of the modified channel with levees would be at least 150 feet. Bridges would also require closures or raising to prevent overtopping and flooding. Space limitations and bridge improvement costs make this approach appear unfeasible also.

Channel Excavation with no Levees

The third channel modification approach consists of a wider trapezoidal channel that would contain flows within the channel banks. The proposed channel was sized by fixing the maximum depth one foot below the existing average bank elevation, and computing the required width based on normal depth flow condi-

tions. In the upper middle portion of the creek near southern Northlake, the proposed channel would require a bottom width of 35 to 40 feet. With 3:1 side slopes and required construction/ maintenance access, the overall channel width would approach 90 to 100 feet.

The proposed channel design was verified by modeling the modified sections with HEC-2. The existing bridges would still create significant backwater and cause flow depths to exceed the banks. Hence, the bridges would have to be replaced with clear span structures for the widened channel to contain flood flows. The need for bridge replacement also appears to make this approach unfeasible.

The golf course area downstream of William Redmond Reservoir was also evaluated for potential channel improvements. This area is flood prone for even very frequent events and can be inundated by the pumped outflow from the reservoir when the large pumps are operating.

The reach of Addison Creek in the golf course and downstream has an extremely flat channel slope and has relatively low channel banks. The surveyed cross sections indicate overbank flooding can occur when depths in the channel exceed approximately 3.5 feet. In addition to the flat channel slope, there are

several channel crossings and a small dam in the Mount Emblem Cemetery that create additional back water. These physical constraints make a simple channel improvement difficult.

A preliminary HEC-2 run was made to determine what size channel improvements and what reaches of the creek would require improvements to provide sufficient capacity through the golf course to permit operation of all the pumps at William Redmond Reservoir. A channel improvement comprised of a 3.8-foot deep trapezoidal channel with 3:1 side slopes and 18-foot bottom width extending from just up-stream of Structure 86 through the golf course would be required. The new channel would have a slope of 0.0007 feet/ feet. In addition, the cemetery dam would have to be removed. These improvements will result in a channel that has the capacity to pass 125 cfs at a depth of approximately 3 to 3.5 feet in the channel reach within to the golf course. The 125 cfs design flow is based on the rated pump capacities at William Redmond plus baseflow after the storm event. Because the pumped outflows could exceed the rated capacities, the pumps would have to be operated in an appropriate manner to limit flows to 125 cfs. Although these improvements appear technically feasible, further study would be required to determine their economic and political viability.

Channel Improvement Conclusions

Although channel improvements are technically feasible and can be an effective flood control measure, with the exception of the reach downstream of William Redmond in the golf course they are not practical for the entire reach of the channel for several reasons. First, for the channel modifications to perform as designed, the majority of the existing bridges would have to be replaced with clear spans. This fact alone makes channel modifications for the entire channel appear to be cost prohibitive.

Other practical considerations also limit the feasibility of channel improvements. In Northlake, Melrose Park, Stone Park, and Bellwood, the required channel would extend well into the yards of many adjacent property owners, requiring property easements, utility relocations, and tree removal. Much opposition can be anticipated from the affected property owners. Clearing trees would destroy the green buffer zone that exists along the channel in many areas. The improved channel would require slope stabilization and erosion control for the more frequent flood events. For the above reasons, channel improvements do not appear to be practical in even limited reaches of the channel prone to frequent flooding.

Finally, by containing flood flows within channel banks, existing floodplain storage is lost. The loss in floodplain storage would increase downstream flood peaks which may cause increased downstream flooding or require more extensive channel improvements.

RP/IDOT/AC9

CHAPTER 9

RECOMMENDATIONS

INTRODUCTION

The purpose of the Addison Creek Stormwater Management System Evaluation was to determine how the eight flood control reservoirs function under design conditions and to recommend operational or physical modifications that would enable them to operate more efficiently. This study examined the operation of these reservoirs at a planning level and draws several conclusions and makes several recommendations. Implementation of any of the recommendations will require detailed "recommendation-specific" analyses in Phase III to determine its estimated cost-effectiveness.

CONCLUSIONS

The following conclusions are drawn based on the available information for each reservoir and the hydrologic-hydraulic analyses:

1. The hydrologic and hydraulic models developed for Addison Creek as a result of this study produce higher flows and

stages on the creek than did previous investigations in the watershed. The higher flows result, in part, from the use of TL-13 rainfall data.

2. Although the flood control reservoirs are providing significant storage and reduction in peak flows, they have not eliminated flooding on the creek for the 100-year event. Significant overbank flooding and bridge overtopping are expected during the 100-year event. However, all known projects with benefit-cost ratios greater than one have been built and are providing significant flood relief during more frequent events.

3. In general, the reservoirs are operating effectively to reduce peak flows and stages-especially for the more frequent events.

4. Existing reservoir dewatering procedures that are not initiated until the threat of flooding has subsided do not create or aggravate flooding problems in the watershed. Although current procedures are not specifically related to flows or stages, they are conservative in that no dewatering takes place until flood flows have receded.

RECOMMENDATIONS

The following recommendations are made to further improve the effectiveness of the operation of the stormwater system and its ability to control serious flooding. Those recommendations requiring major improvements should be evaluated in detail to determine if benefit to cost ratios are favorable.

1. The Railroad Avenue Reservoir bypass pipe gate is currently closed for each major flood event resulting in diversion of all flows into the reservoir. It is recommended that the bypass gate remain open at all times to better utilize the available storage capacity of the reservoir.

2. It is recommended that the reservoir operation rules presented in Chapter 7 be followed for each reservoir. It is recommended that these rules be formalized and identify specific elevations or flows at designated control points to aid in operation. Implementation of these rules will ensure that dewatering does not result in downstream system flooding and that outflows from Arlington Reservoir and William Redmond Reservoir will not be "double-stored" or "double-pumped".

3. It is recommended that an expansion of William Redmond Reservoir to an estimated maximum storage capacity of 1,200 AF and a bypass rate reduction from approximately 90 cfs to 60 cfs be considered. This action will decrease downstream flooding in the Grand Ave/Westdale School area by up to 1.0 foot and will also improve the performance of Structure 86 so that it provides a 100-year level of protection. This investigation should also examine the need for, and economic feasibility of, channel improvements downstream in the golf course that would permit a more timely dewatering of the reservoir if it were expanded.

4. It is recommended that SCS designated Structure 92 be considered near the Proviso railroad yard. The 400 AF capacity of Structure 92 reduces flows in the downstream reach of the creek by as much as 26 percent. Flood stages may be reduced by as much as 1.7 feet in a 50-year flood event.

RP/IDOT/AE6

APPENDIX A

CITED REFERENCES

CITED REFERENCES

- Donohue & Associates, Inc., "July 22, 1987 Meeting with Mike Falls and Larry Gage, Village of Bensenville", Memorandum to File, July 23, 1987.

- Donohue & Associates, Inc., "July 27, 1987 Meeting with Dennis Streicher, Superintendent of W & WWTP in Elmhurst", Memorandum to File, July 27, 1987.

- Donohue & Associates, Inc., "July 28, 1987 Meeting with Major Eugene Doyle of Northlake", Memorandum to File, July 29, 1987.

- Donohue & Associates, Inc., "May 17, 1988 Meeting with IDOT/DWR", Memorandum to File, May 18, 1988.

- Donohue & Associates, Inc., "August 23, 1988 telephone conversation with Andre Kwiatek, foreman for the Department of Public Works, Village of Hillside", Memorandum to File, August 23, 1988.

- Donohue & Associates, Inc., "September 6, 1988 telephone conversation with Bob Dalton, IDOT/DWR", Memorandum to file, September 6, 1988.

- Illinois State Water Survey, Report of Investigation 82, State of Illinois, Department of Registration and Education, 1976.

- Illinois State Water Survey, Technical Letter 13, December, 1970.

- U.S. Geological Survey, Annual Peak Flow Frequency Analysis Following WRC Guidelines, Bull.17-B, June 2, 1987.

RP/IDOT/AC7

APPENDIX B

FIGURES

APPENDIX B

TABLE OF CONTENTS

Watershed Map

Subbasin Map

William Redmond Reservoir

SCS Structure No. 86

York Road/I-90 Reservoir

Arlington Cemetery Reservoir

Railroad Avenue Reservoir

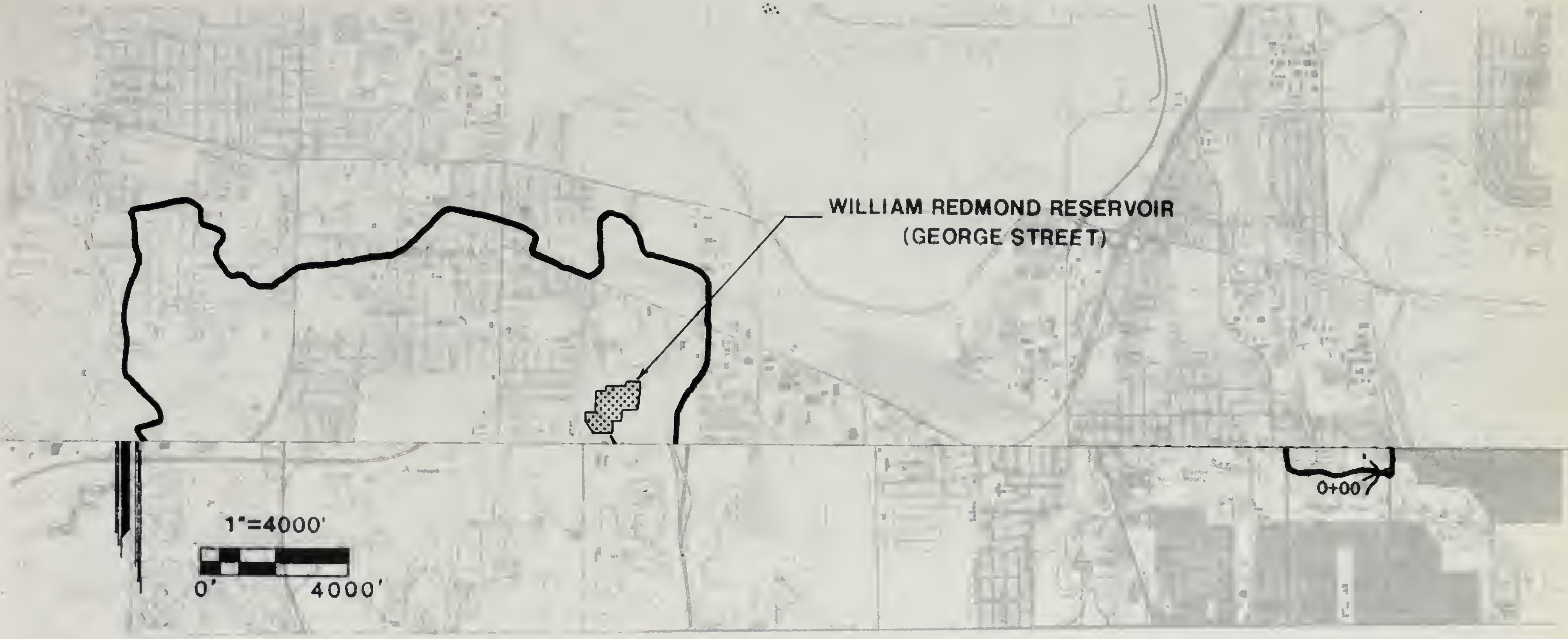
Eugene A. Doyle Reservoir

Lower Elmhurst Reservoir

Hillside Retention Reservoir

Reservoir Control Points

R/IDOT/AG8



WATERSHED MAP

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM

COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
1
PAGE
B-1

Donohue
Engineers & Architects

PROJ. NO. 16025
FILE NO. IL. 182

AUGUST, 1988

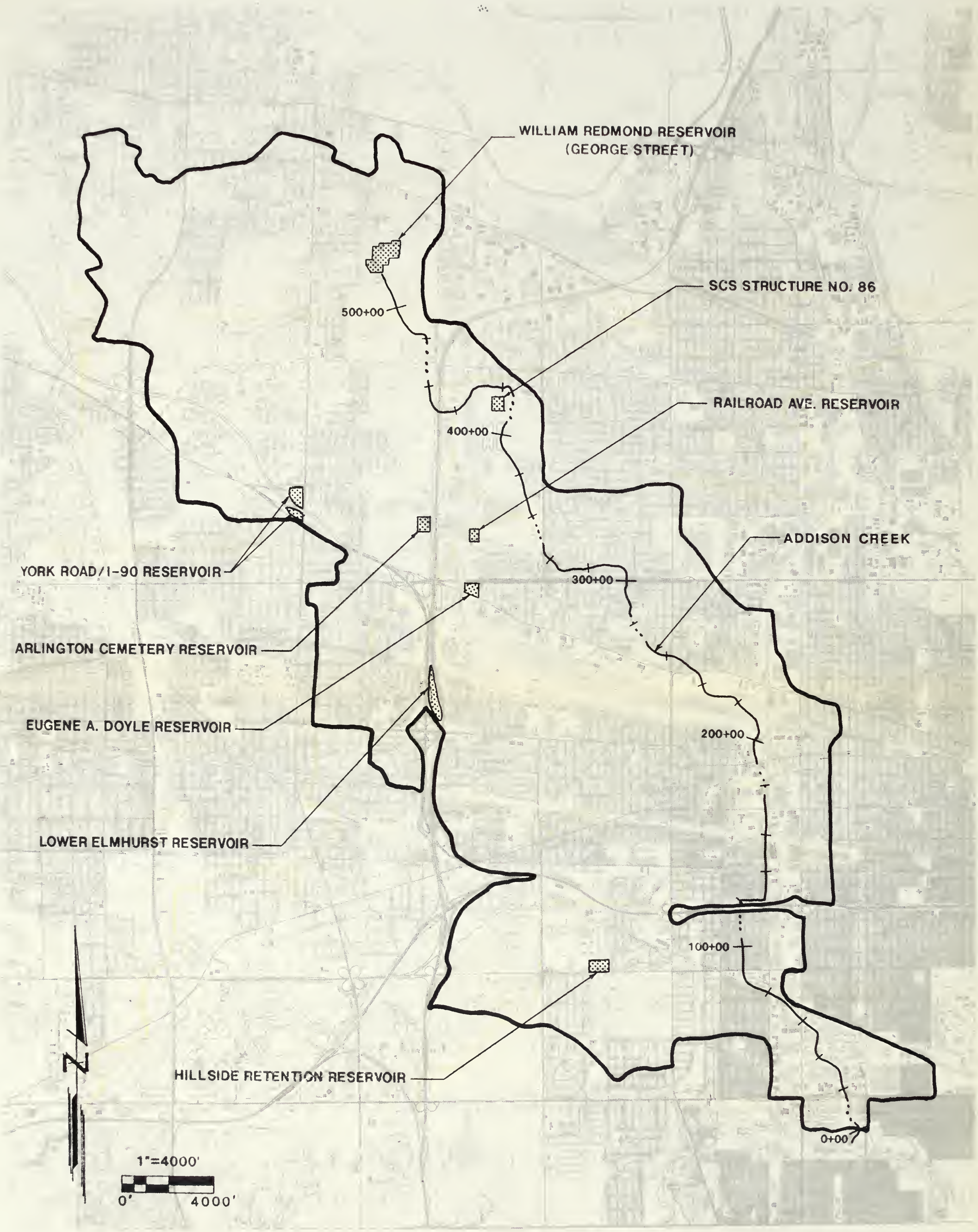


FIGURE 1
PAGE B-1

WATERSHED MAP
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

PROJ NO. 16025
FILE NO. IL. 182

AUGUST, 1988

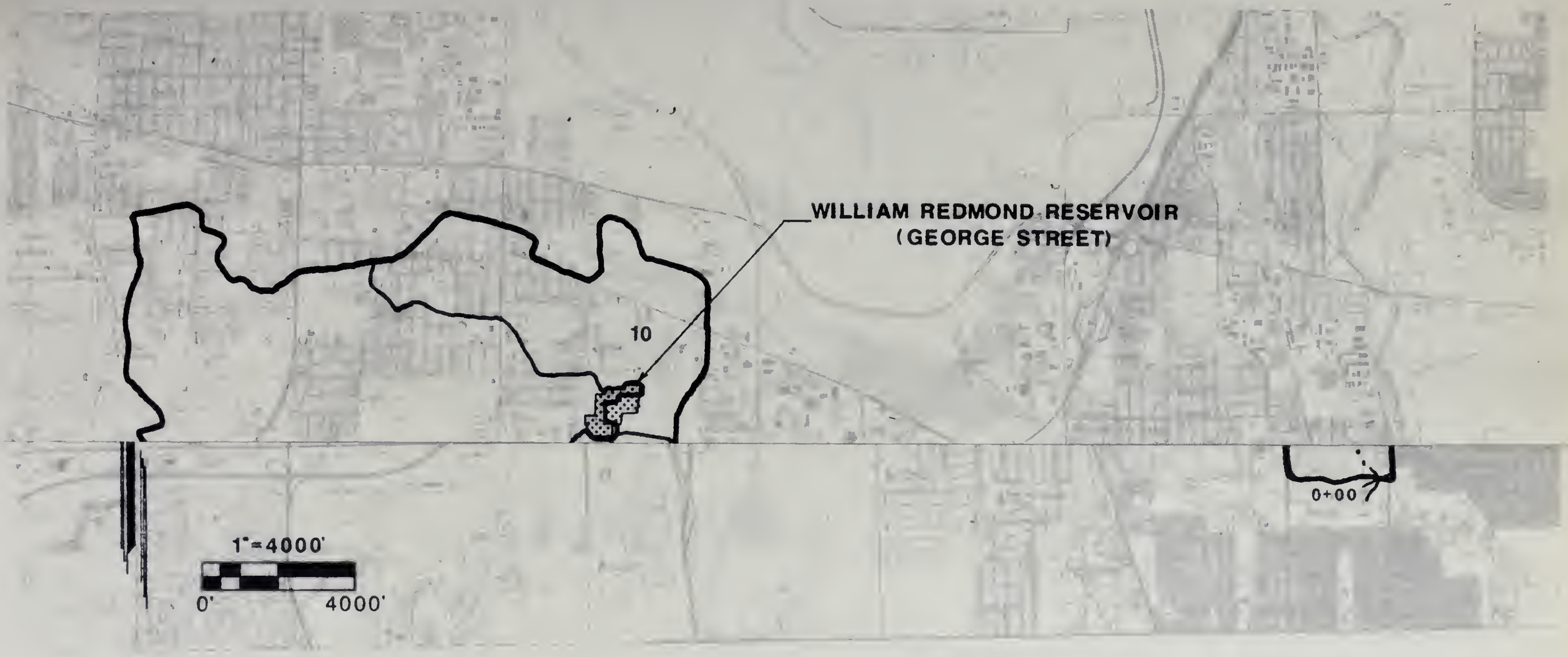


FIGURE
2
PAGE
B-2

SUBBASIN MAP

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM

COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

PROJ. NO. 16025
FILE NO. IL. 181

AUGUST, 1988

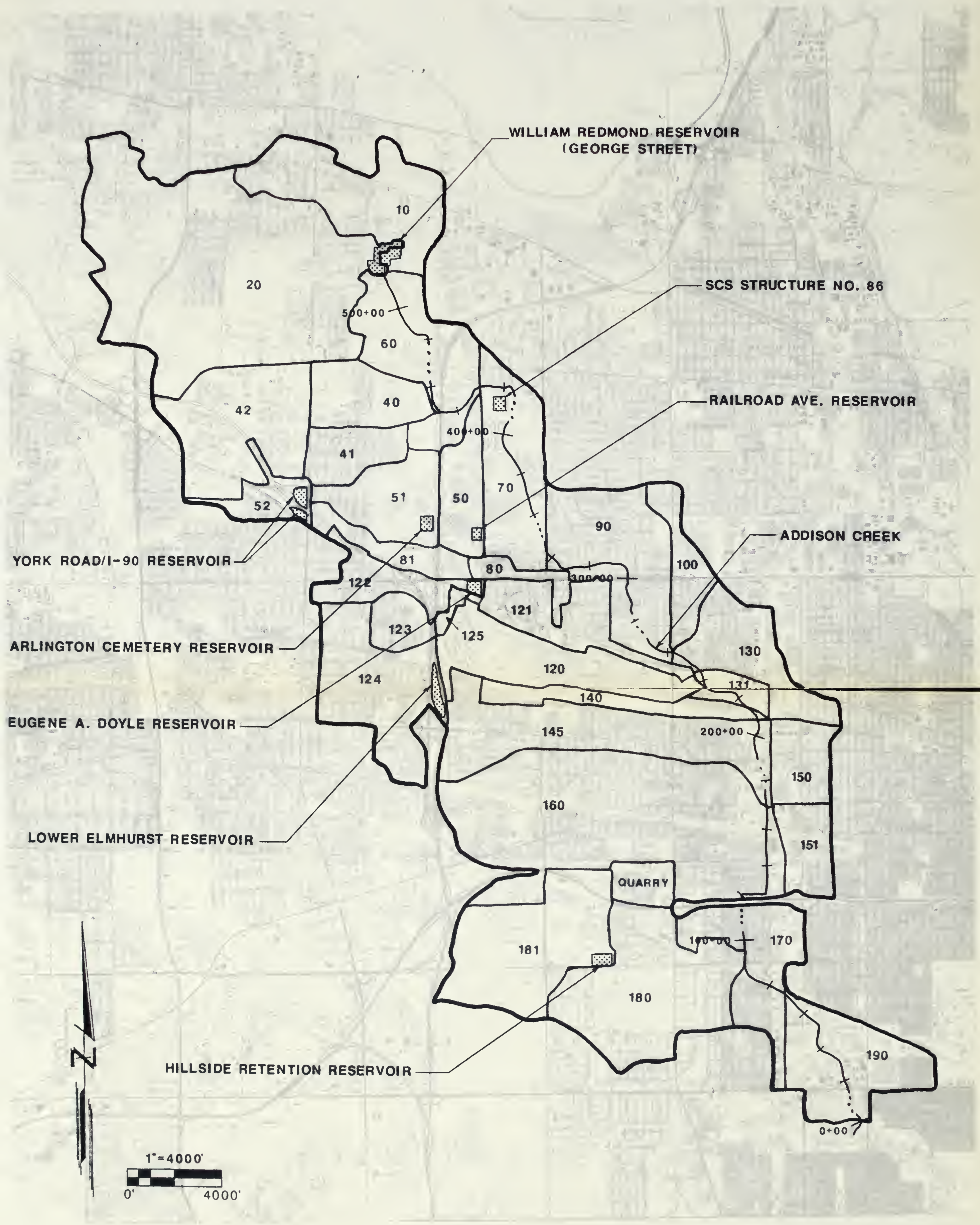


FIGURE
2
PAGE
8-2

SUBBASIN MAP

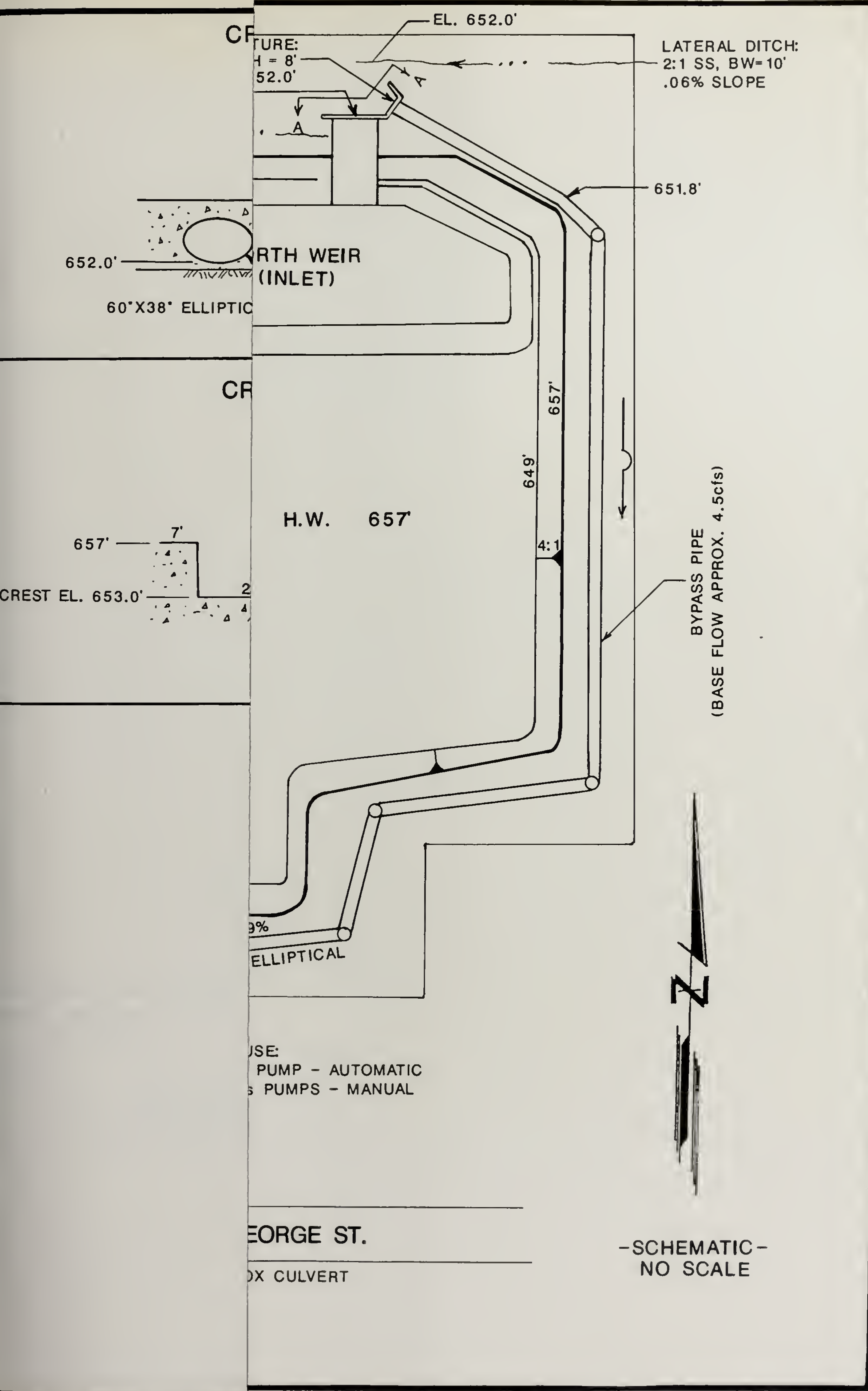
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM

COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

PROJ NO 16025
FILE NO. IL 181

AUGUST, 1988



Donohue
Engineers & Architects

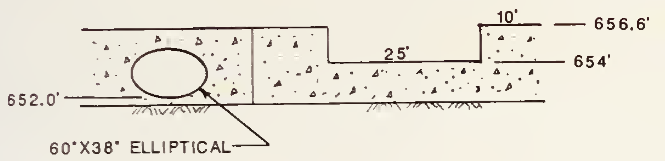
AUGUST, 1988

WILLIAM REDMOND RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

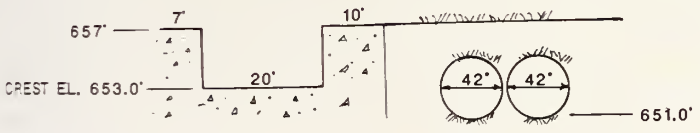
FIGURE
3

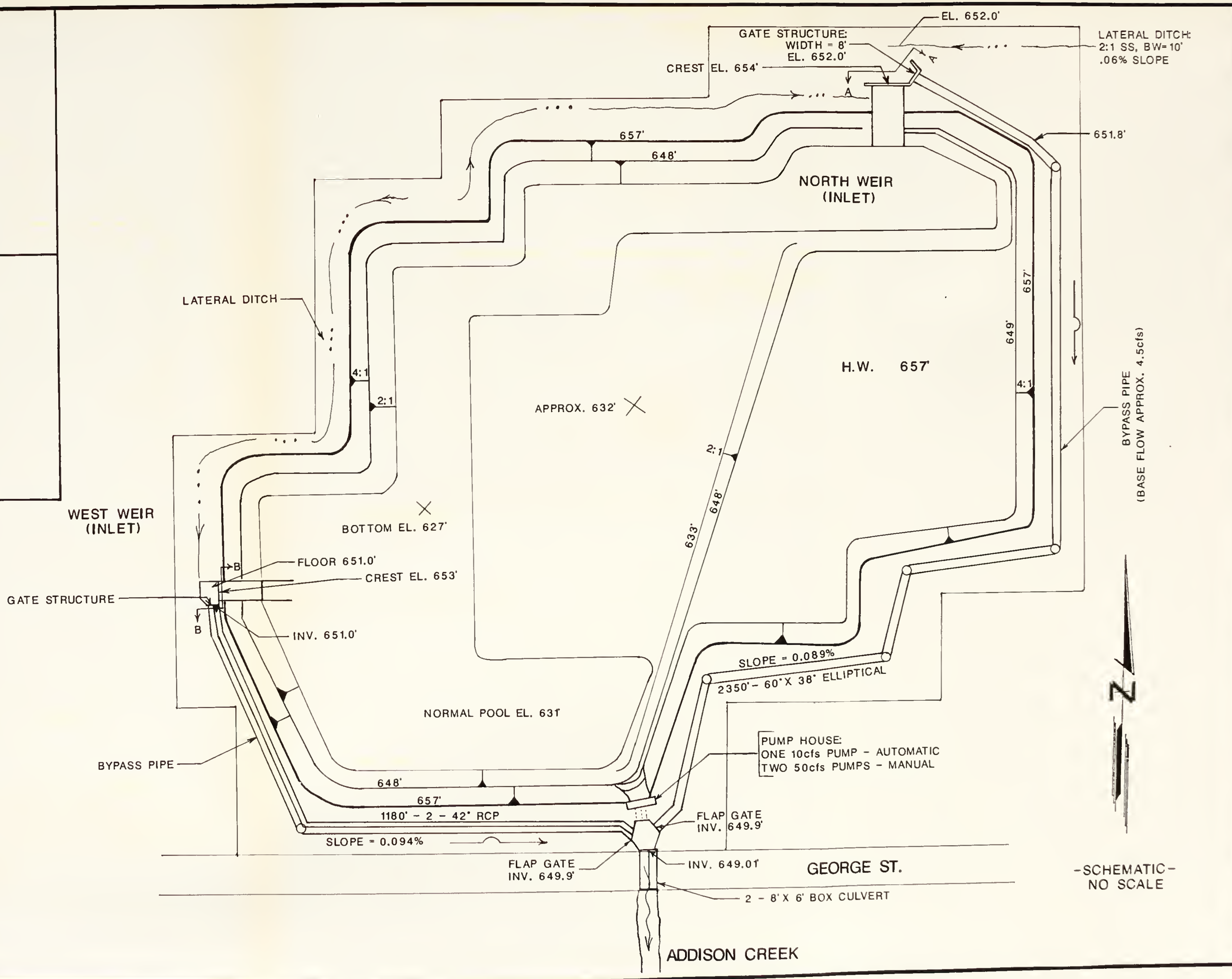
FILE NO. IL. 168

CROSS SECTION A-A
NORTH WEIR



CROSS SECTION B-B
WEST WEIR





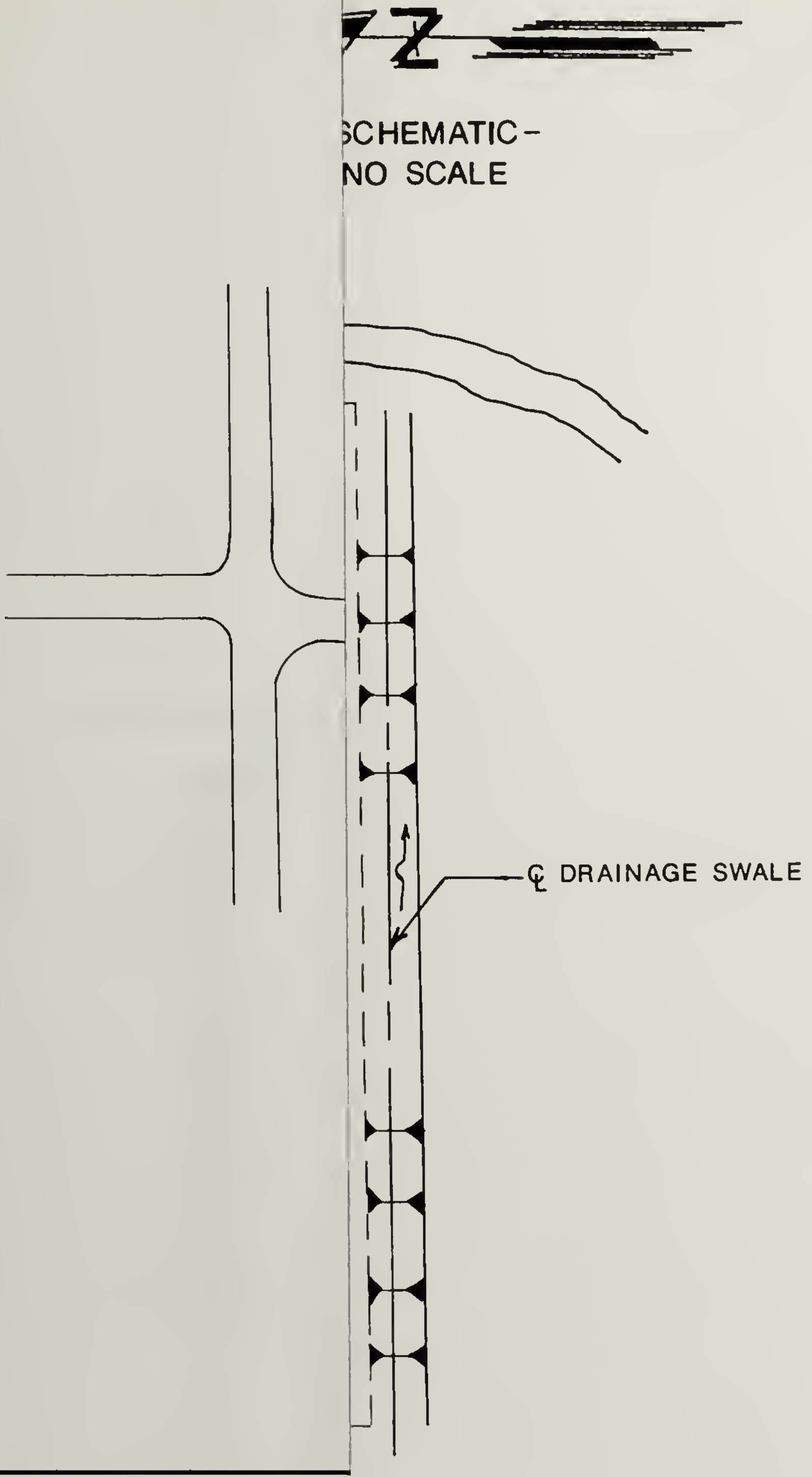
Donohue
Engineers & Architects

AUGUST, 1988

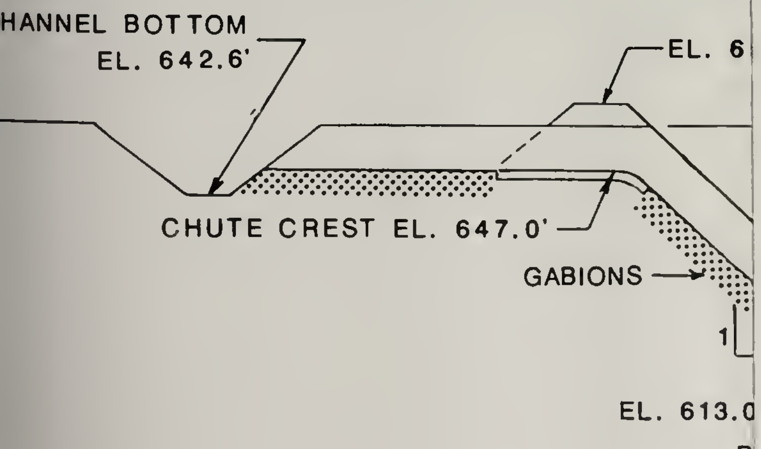
WILLIAM REDMOND RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
3

FILE NO. IL. 188



SCHEMATIC-
NO SCALE



CROSS SECTION
GABION INLET STRU

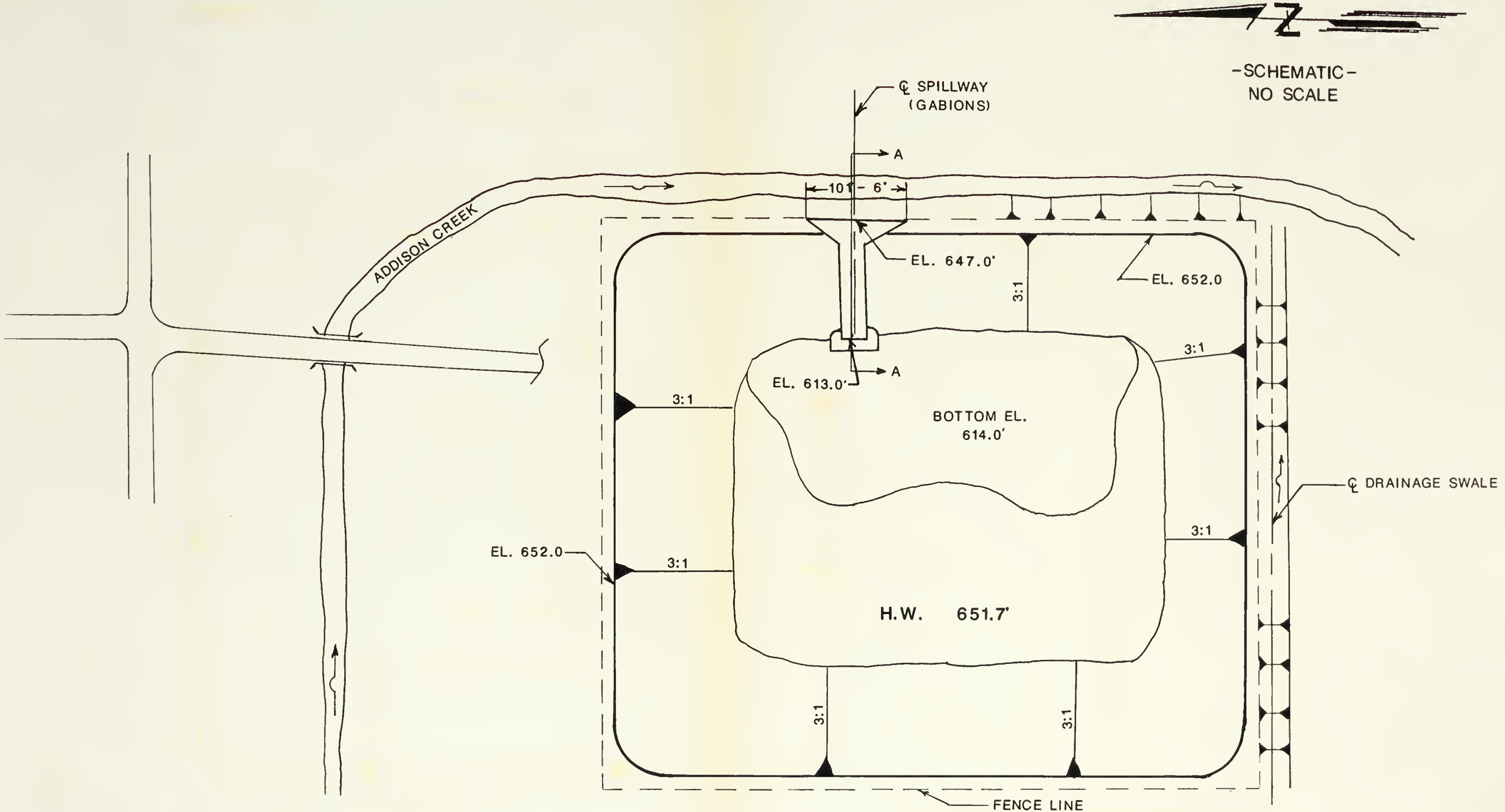
Donohue
Engineers & Architects

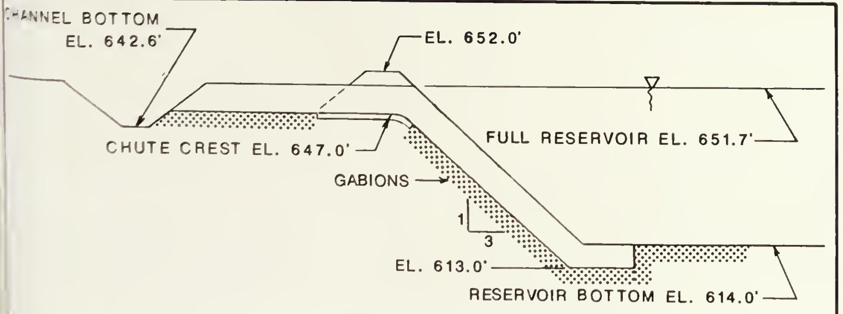
AUGUST, 1988

SCS STRUCTURE NO. 86
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
4
PAGE
B-4

FILE NO. IL. 167




CHANNEL BOTTOM EL. 642.6'
EL. 652.0'
CHUTE CREST EL. 647.0'
FULL RESERVOIR EL. 651.7'
GABIONS
1
3
EL. 613.0'
RESERVOIR BOTTOM EL. 614.0'

CROSS SECTION A-A
GABION INLET STRUCTURE

Donohue
Engineers & Architects

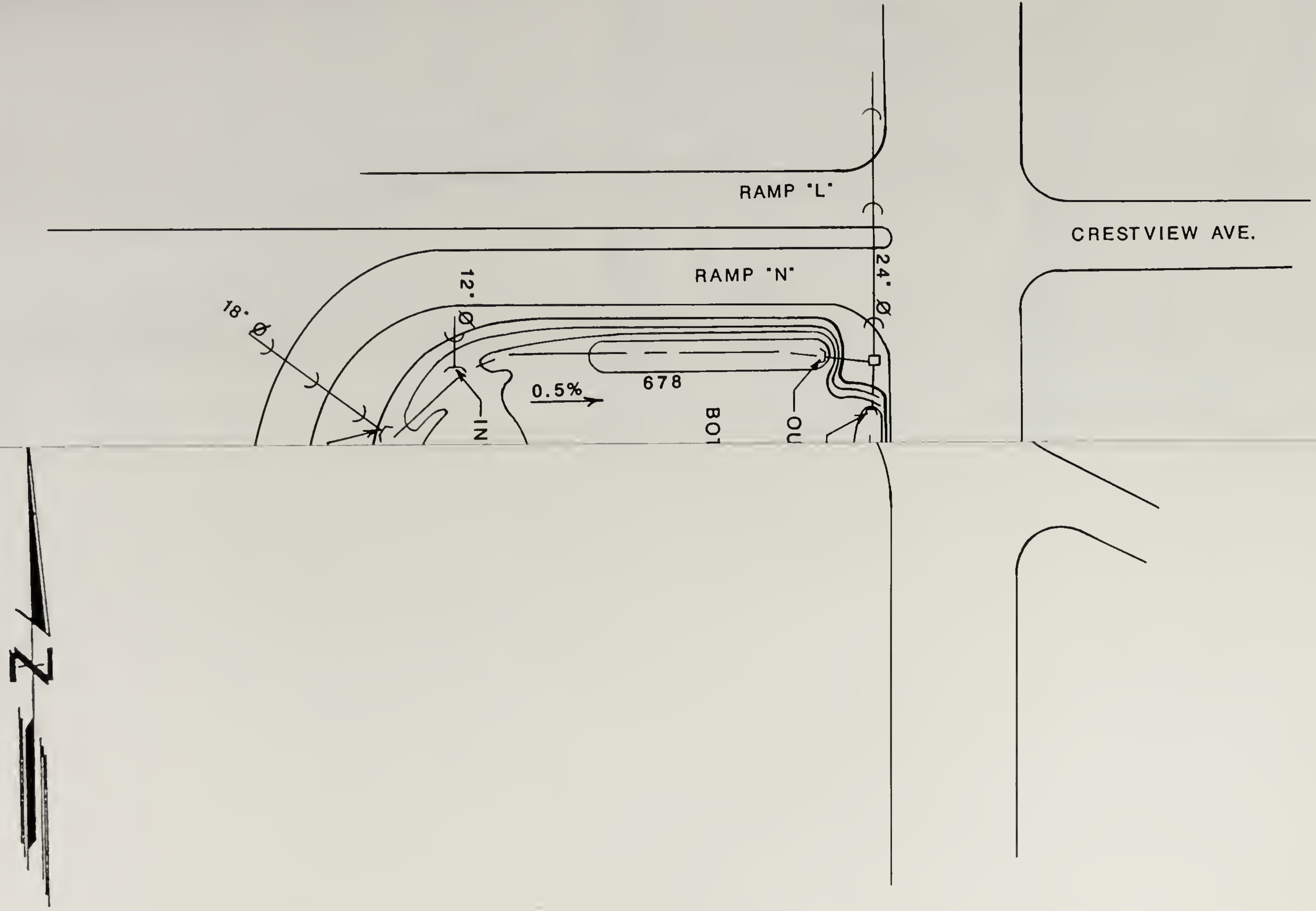
AUGUST, 1988

SCS STRUCTURE NO. 86
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
4

PAGE
B-4

FILE NO. IL. 167



-SCHEMATIC-
NO SCALE

YORK ROAD/I-90 RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSYEM
COOK AND DuPAGE COUNTIES, ILLINOIS

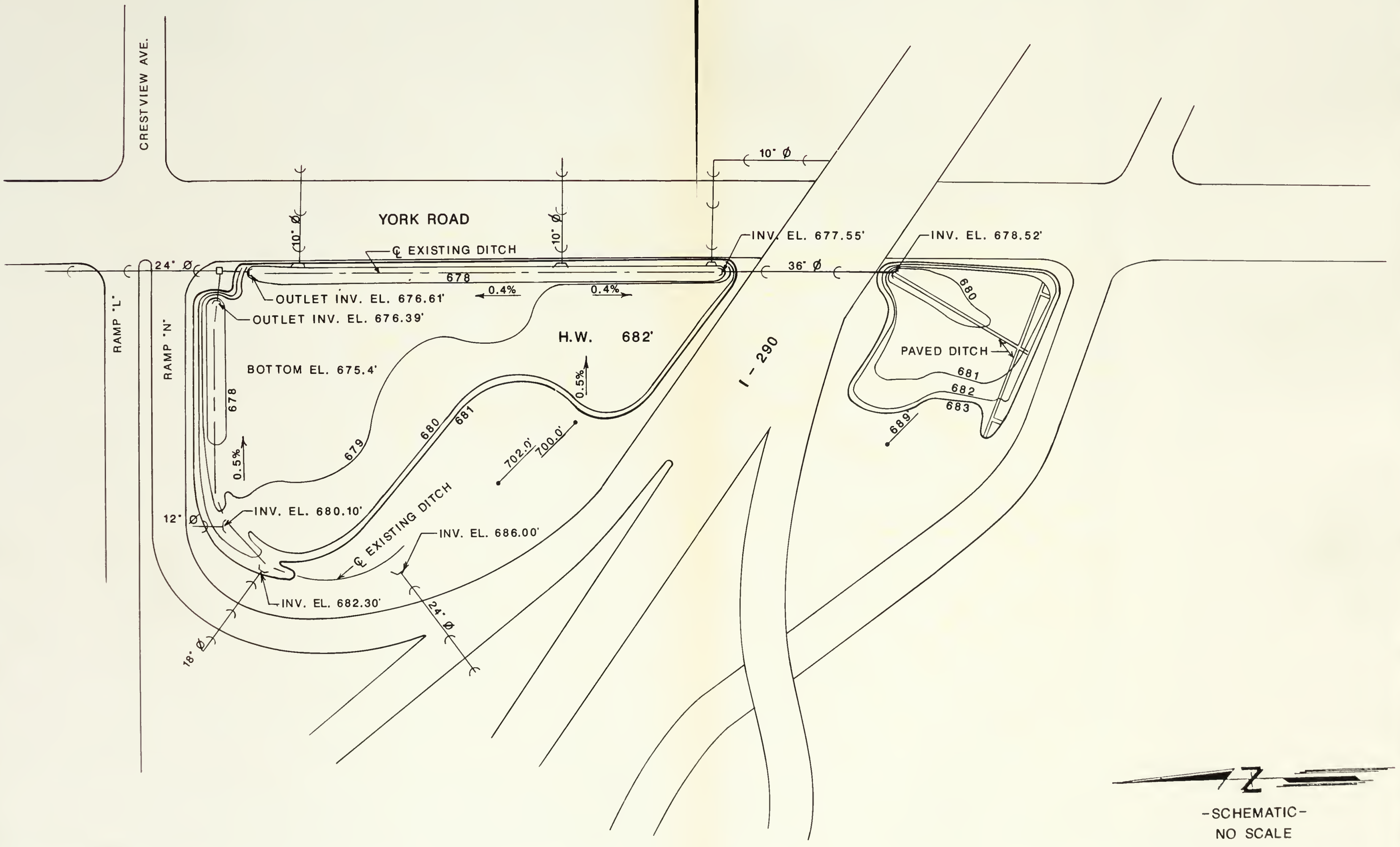
Donohue
Engineers & Architects

FIGURE
5

PAGE
B-5

FILE NO. IL. 171

AUGUST, 1988



YORK ROAD/I-90 RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSYEM
COOK AND DuPAGE COUNTIES, ILLINOIS

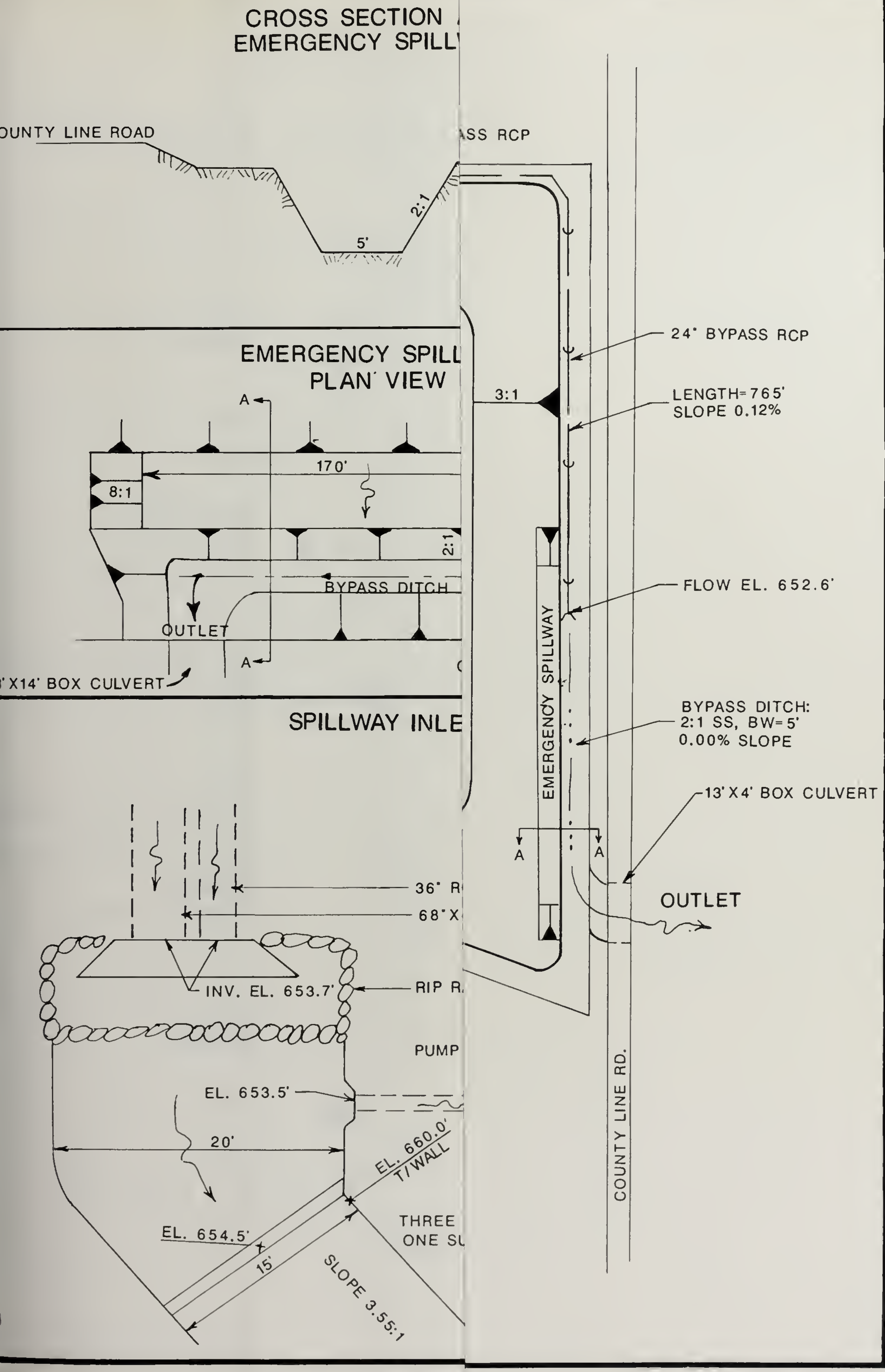
Donohue
Engineers & Architects

AUGUST, 1988

FIGURE
5

PAGE
B-5

FILE NO. IL. 171



Donohue
Engineers & Architects

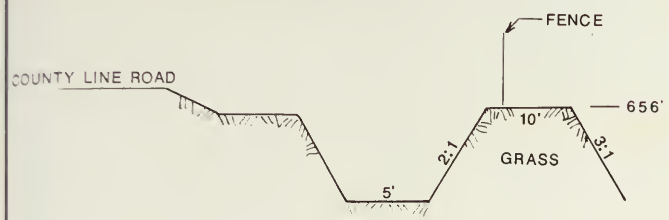
AUGUST, 1988

ARLINGTON CEMETERY RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

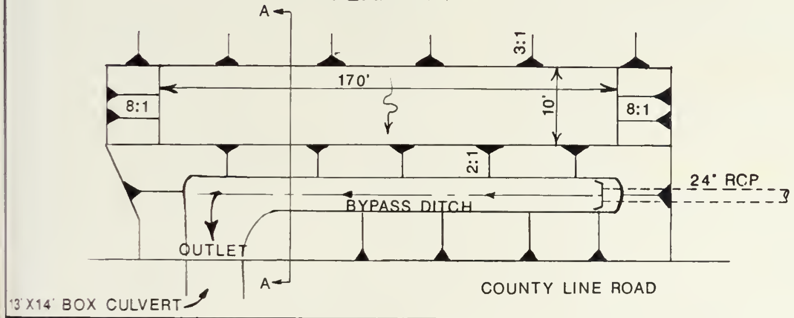
FIGURE
6
PAGE
B-6

FILE NO. IL. 170

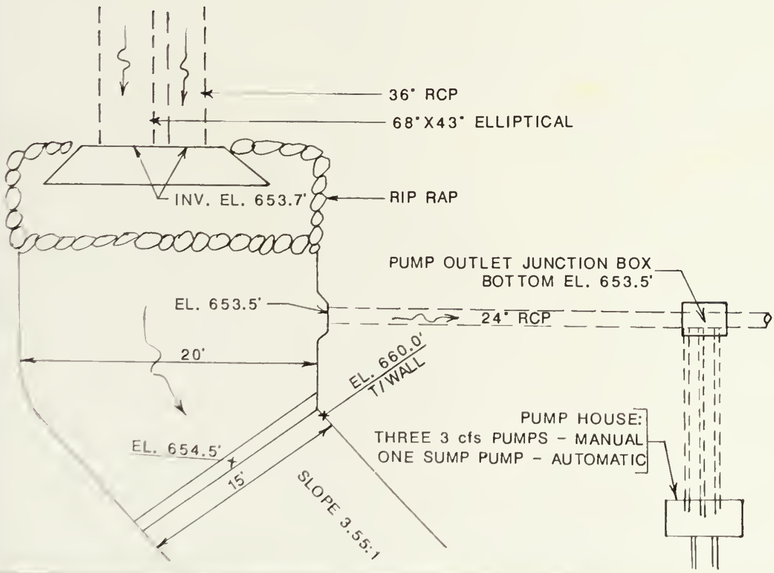
CROSS SECTION A-A
EMERGENCY SPILLWAY

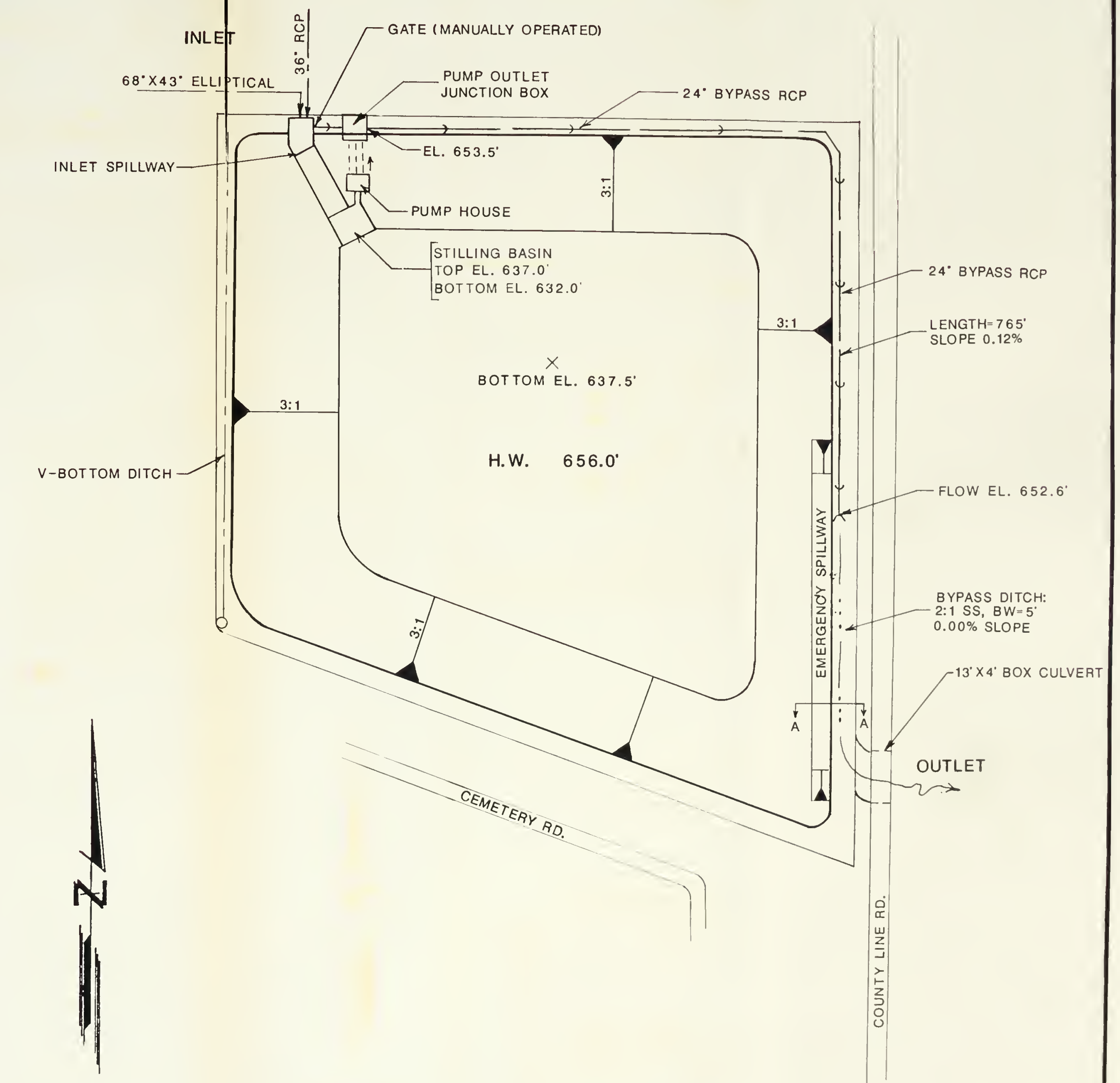


EMERGENCY SPILLWAY
PLAN VIEW



SPILLWAY INLET





-SCHEMATIC-
NO SCALE

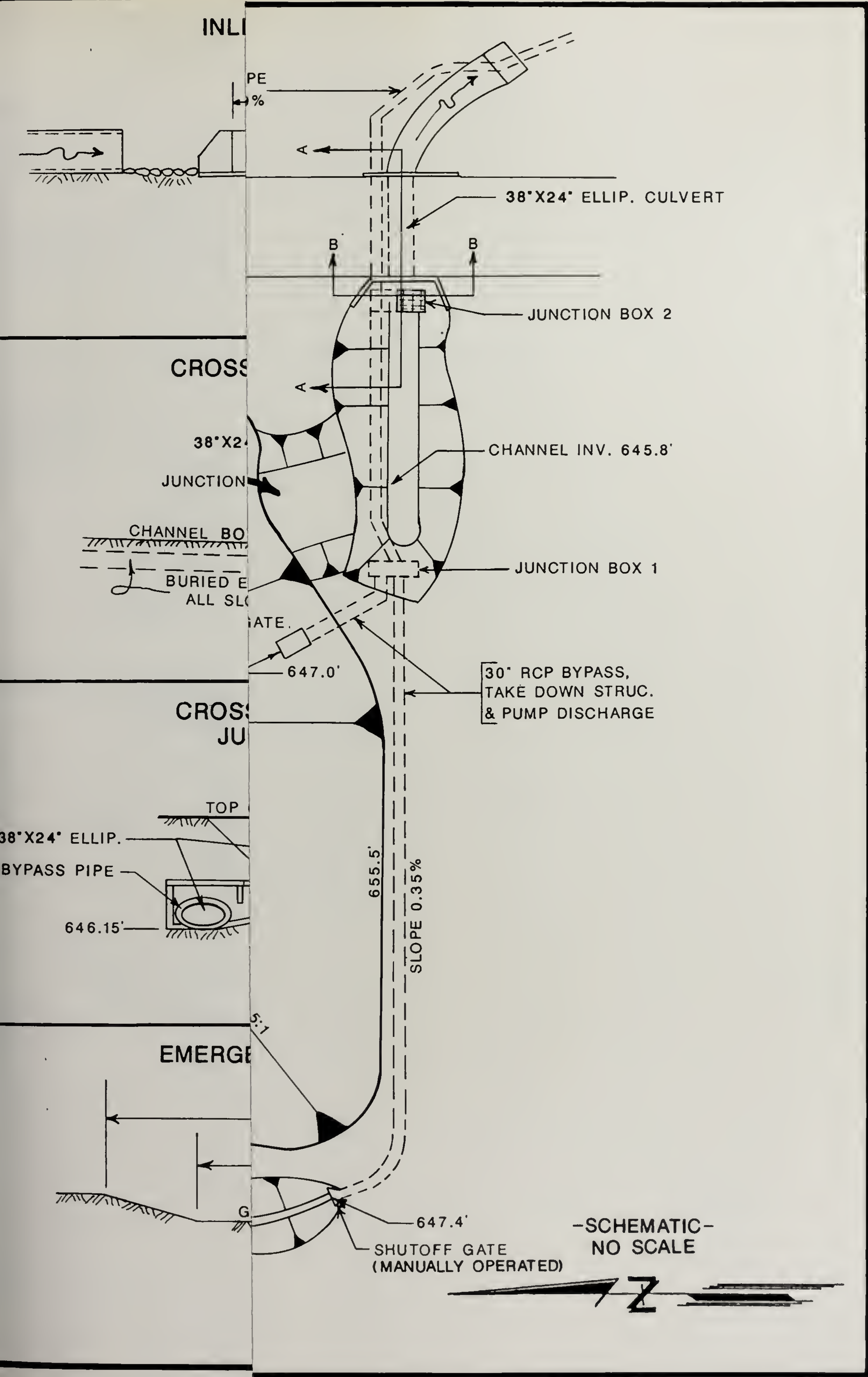
Donohue
Engineers & Architects

AUGUST, 1988

ARLINGTON CEMETERY RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
6
PAGE
B-6

FILE NO. IL. 170



Donohue
Engineers & Architects

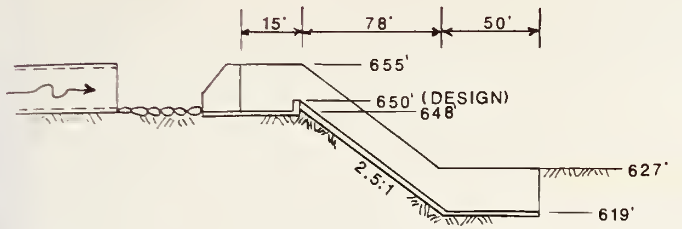
AUGUST, 1988

RAILROAD AVENUE RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

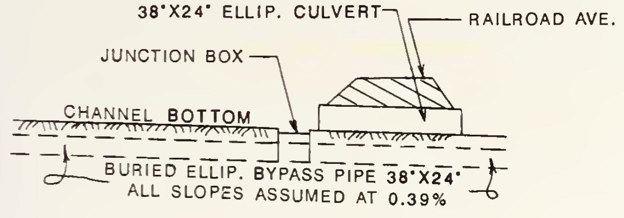
FIGURE
7
PAGE
B-7

FILE NO. IL. 169

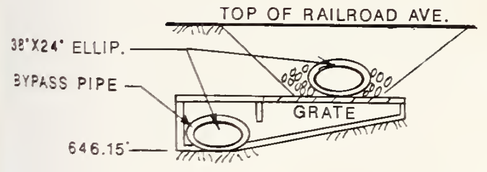
INLET SPILLWAY



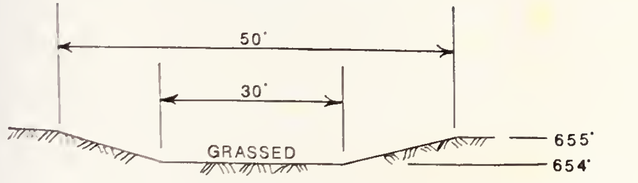
CROSS SECTION A-A

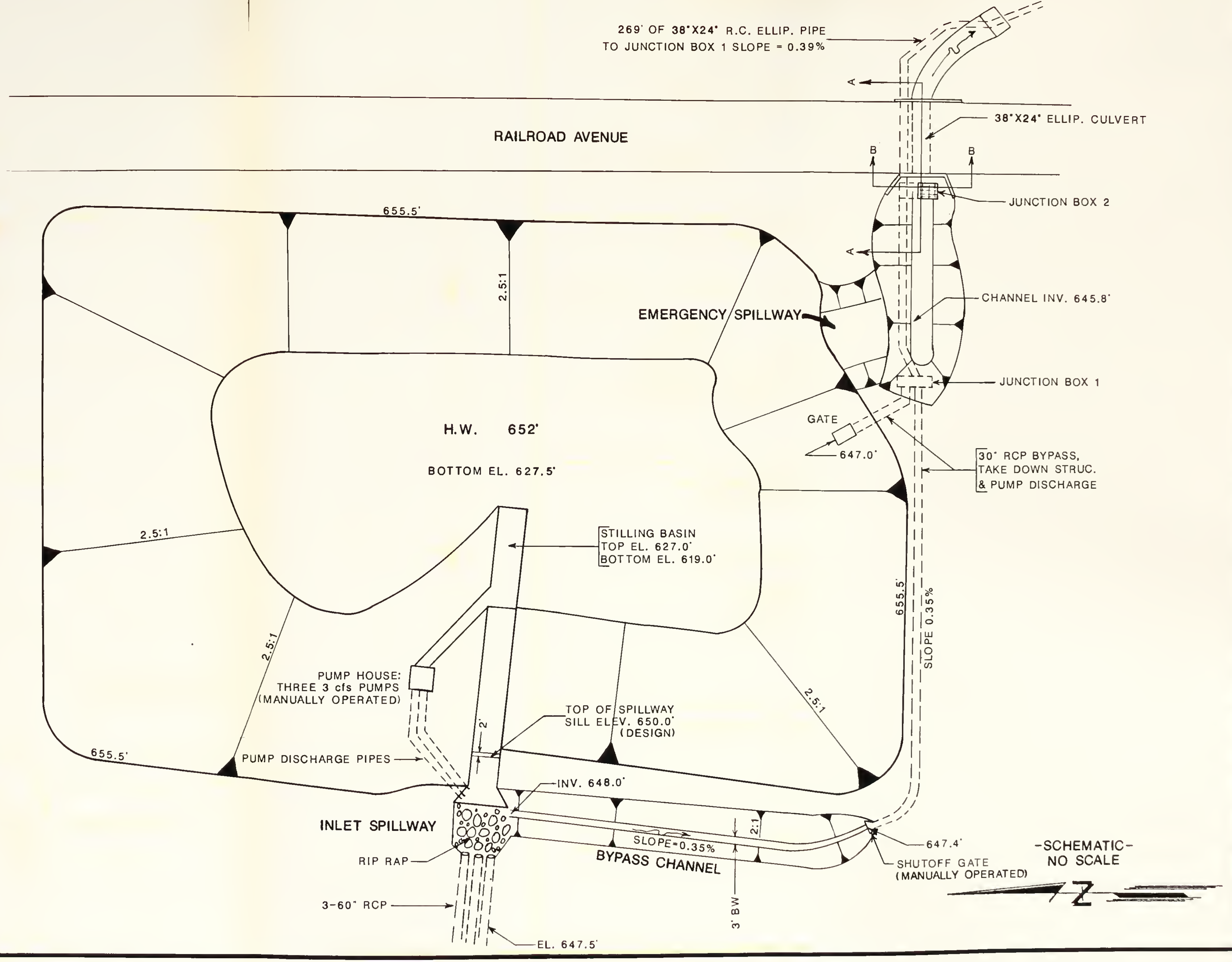


CROSS SECTION B-B
JUNCTION BOX



EMERGENCY SPILLWAY





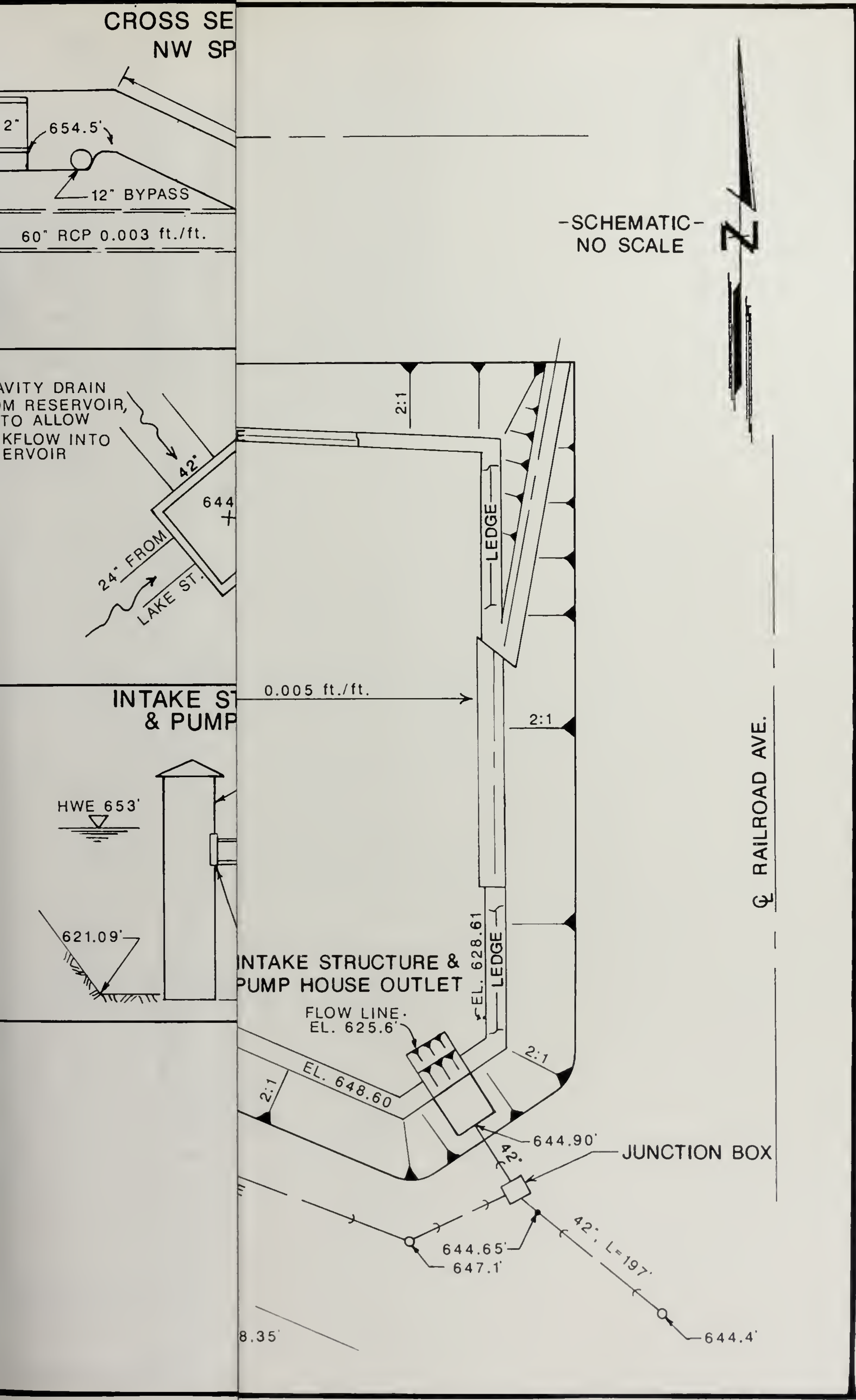
Donohue
Engineers & Architects

RAILROAD AVENUE RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
7
PAGE
B-7

AUGUST, 1988

FILE NO. IL. 169



Donohue
Engineers & Architects

AUGUST, 1988

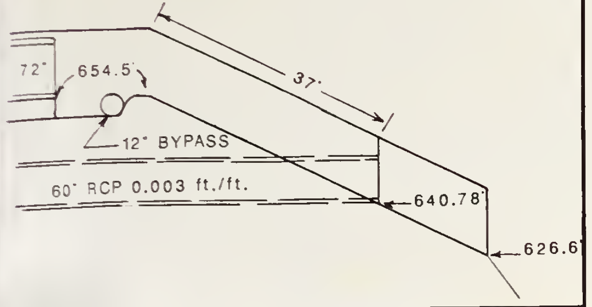
EUGENE A. DOYLE RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
8

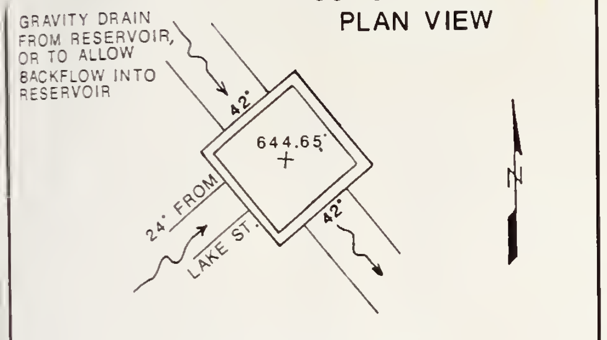
AGE
B-8

FILE NO. IL. 166

CROSS SECTION A-A
NW SPILLWAY

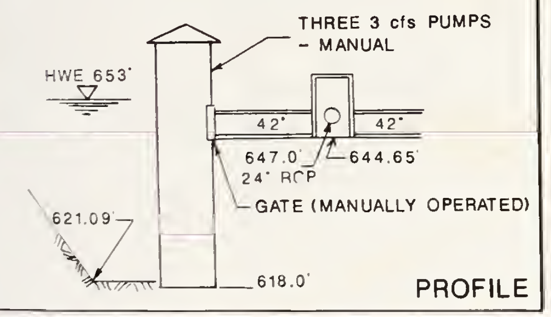


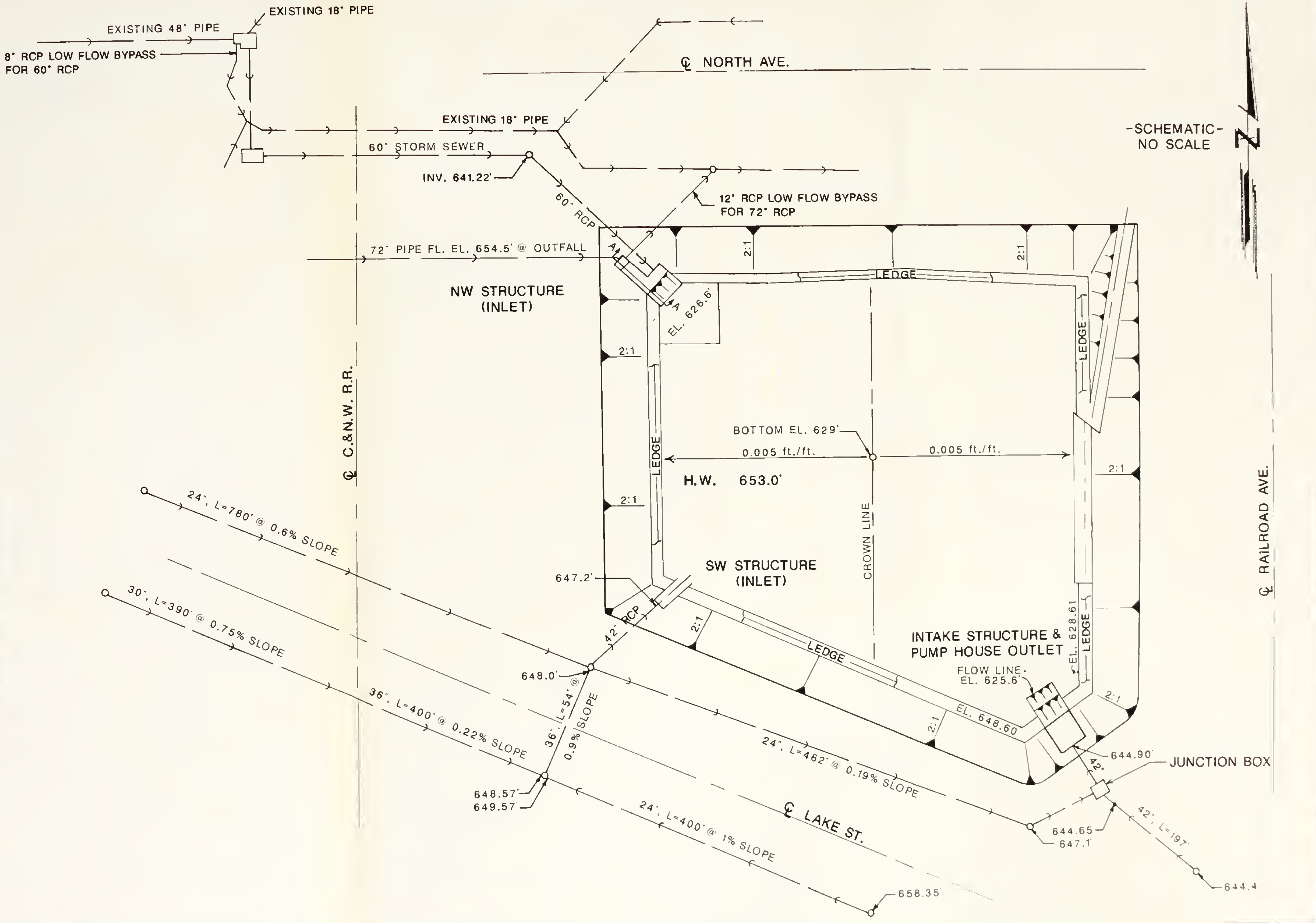
JUNCTION BOX
PLAN VIEW



GRAVITY DRAIN FROM RESERVOIR, OR TO ALLOW BACKFLOW INTO RESERVOIR
42"
644.65'
24" FROM LAKE ST.
42"
N

INTAKE STRUCTURE
& PUMPHOUSE





EUGENE A. DOYLE RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

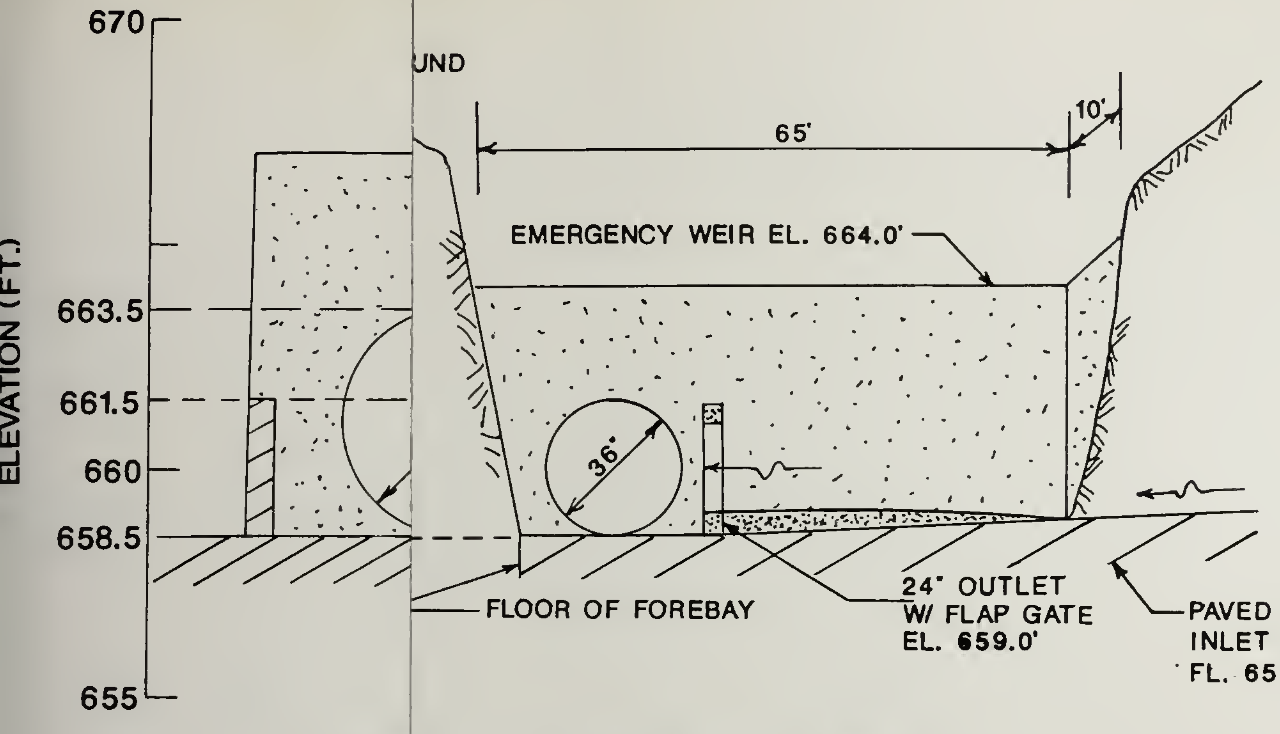
Donohue
Engineers & Architects

AUGUST, 1988

FIGURE
8

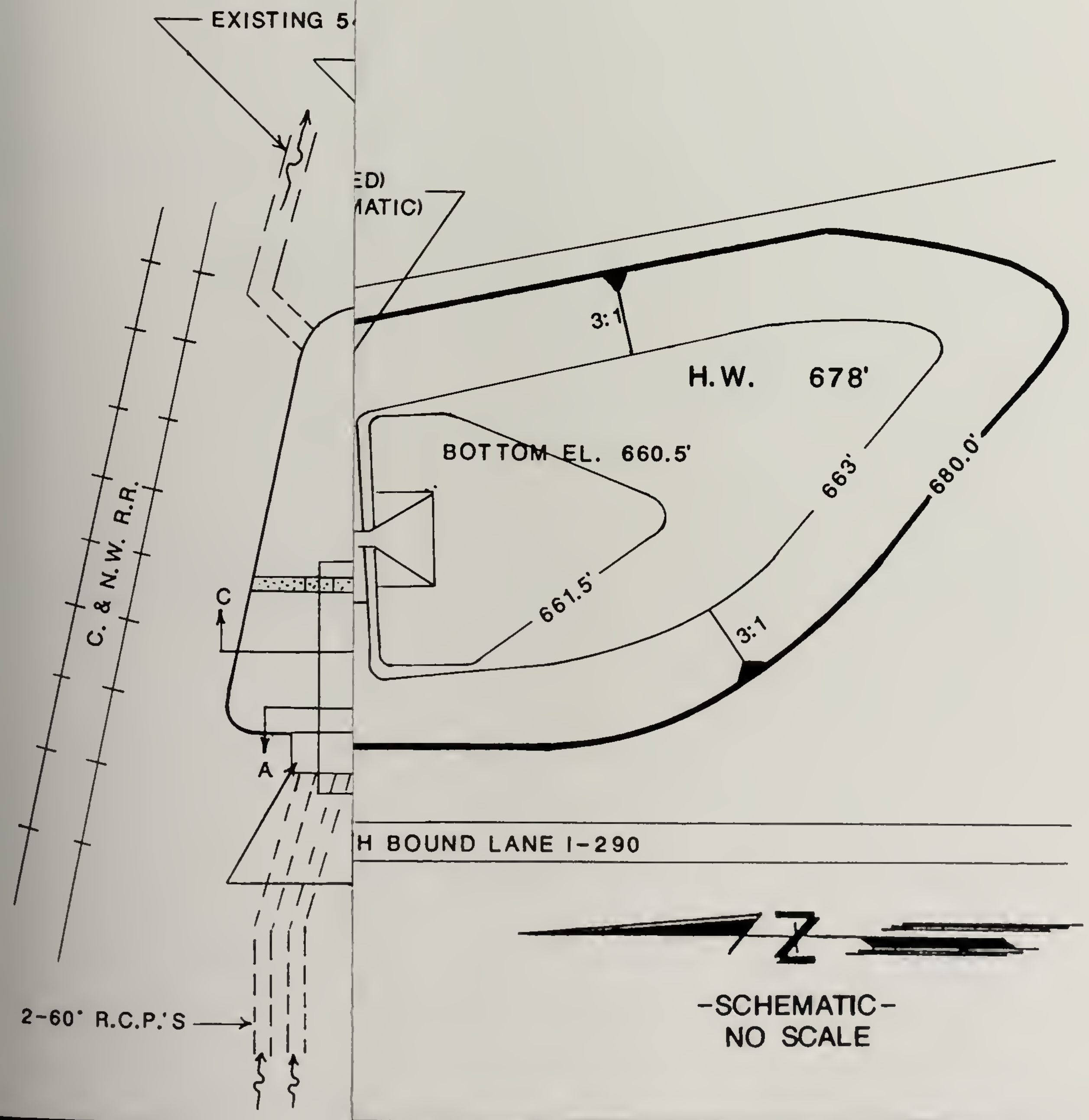
PAGE
A-8

FILE NO. IL 166



CR

CROSS SECTION C-C



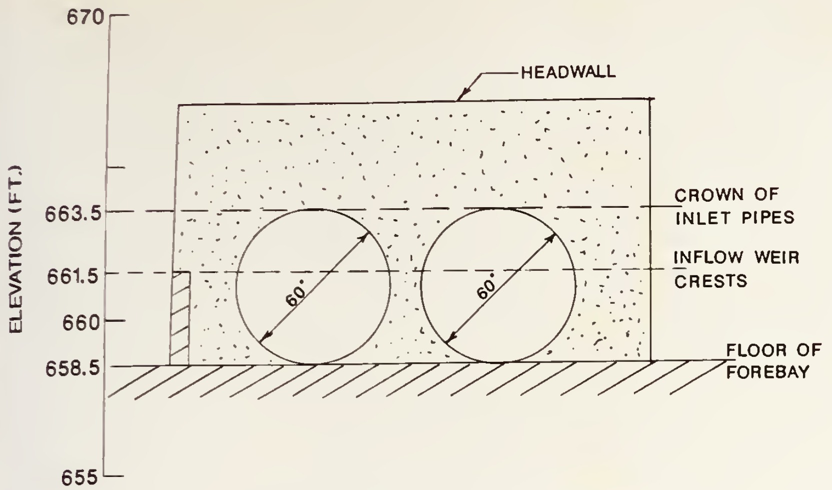
Donohue
Engineers & Architects

AUGUST, 1988

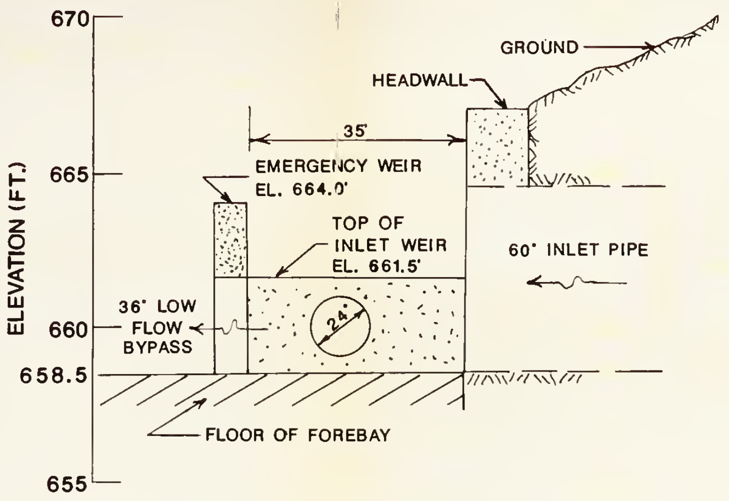
LOWER ELMHURST RESERVOIR (Proposed Completion Unknown)
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
9
PAGE
B-9

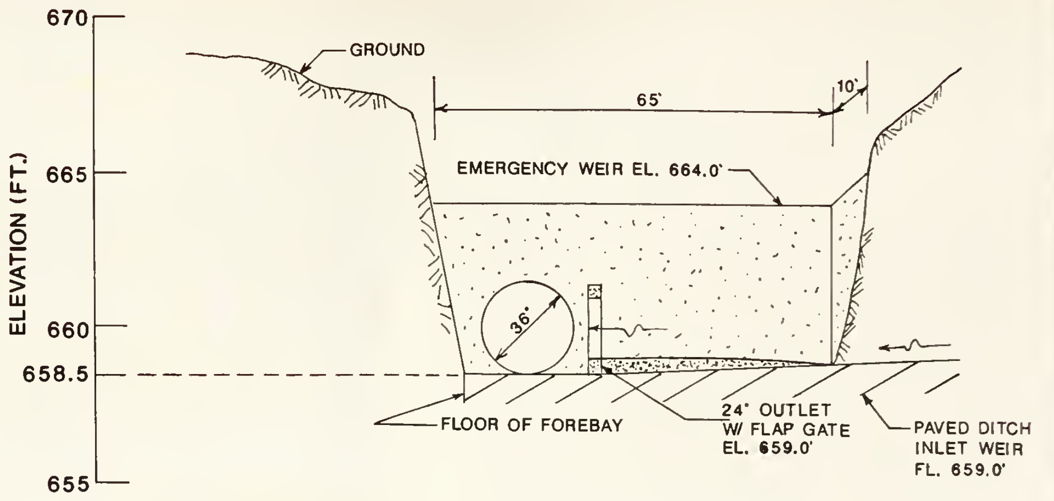
FILE NO. IL. 172



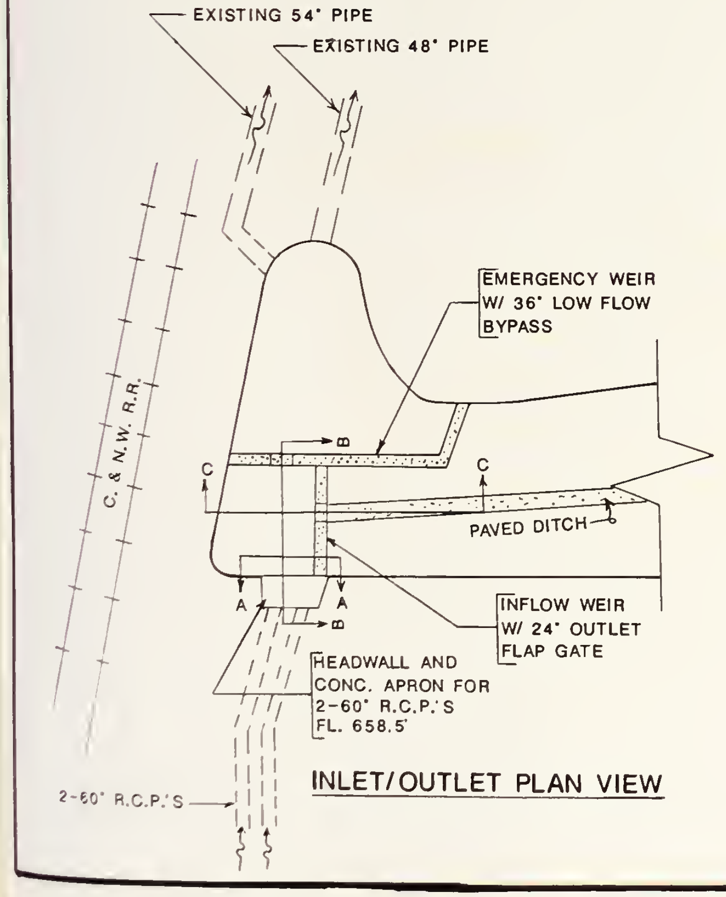
CROSS SECTION A-A



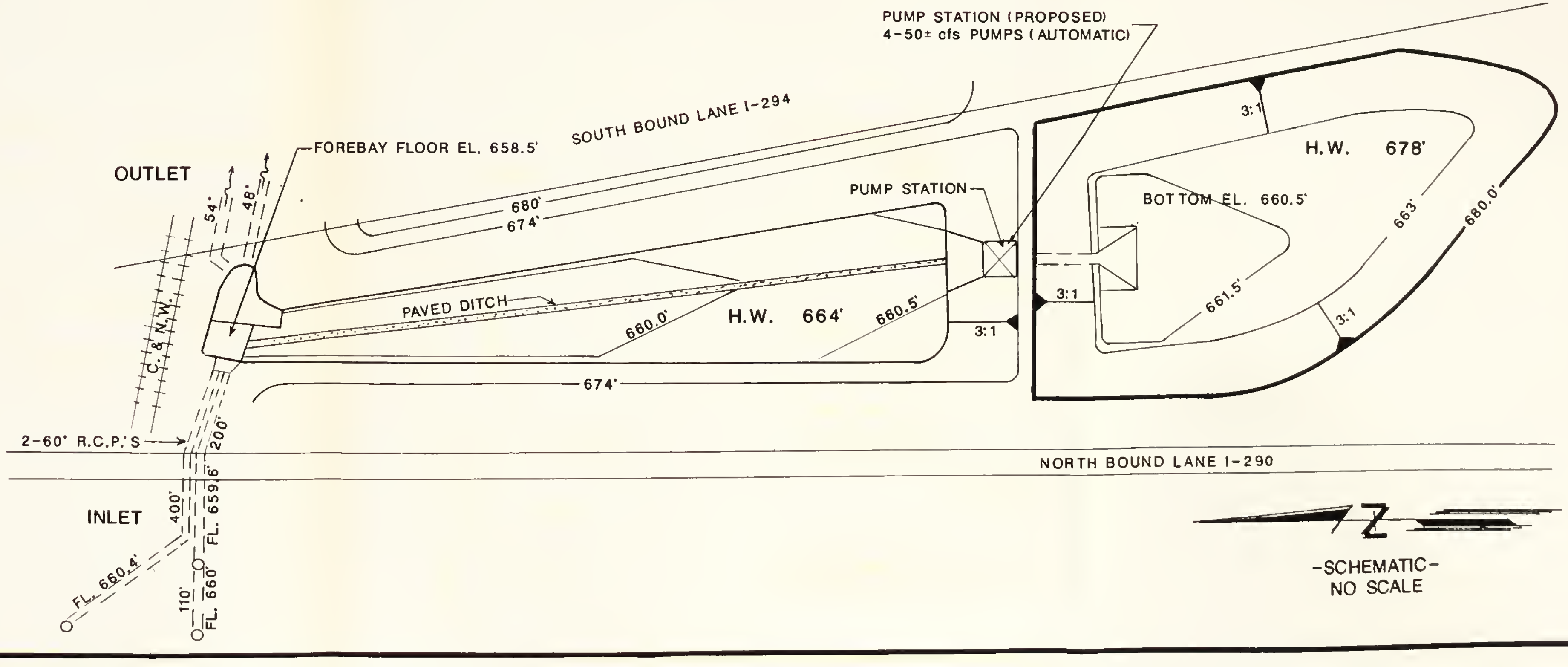
CROSS SECTION B-B


670
665
660
658.5
655
ELEVATION (FT.)
GROUND
65'
10'
EMERGENCY WEIR EL. 664.0'
36"
FLOOR OF FOREBAY
24" OUTLET W/ FLAP GATE EL. 659.0'
PAVED DITCH INLET WEIR FL. 659.0'

CROSS SECTION C-C


EXISTING 54" PIPE
EXISTING 48" PIPE
C. & N.W. R.R.
EMERGENCY WEIR W/ 36" LOW FLOW BYPASS
B
C
C
PAVED DITCH
A
A
B
B
INFLOW WEIR W/ 24" OUTLET FLAP GATE
HEADWALL AND CONC. APRON FOR 2-60" R.C.P.'S FL. 658.5'
2-60" R.C.P.'S

INLET/OUTLET PLAN VIEW



-SCHEMATIC-
NO SCALE

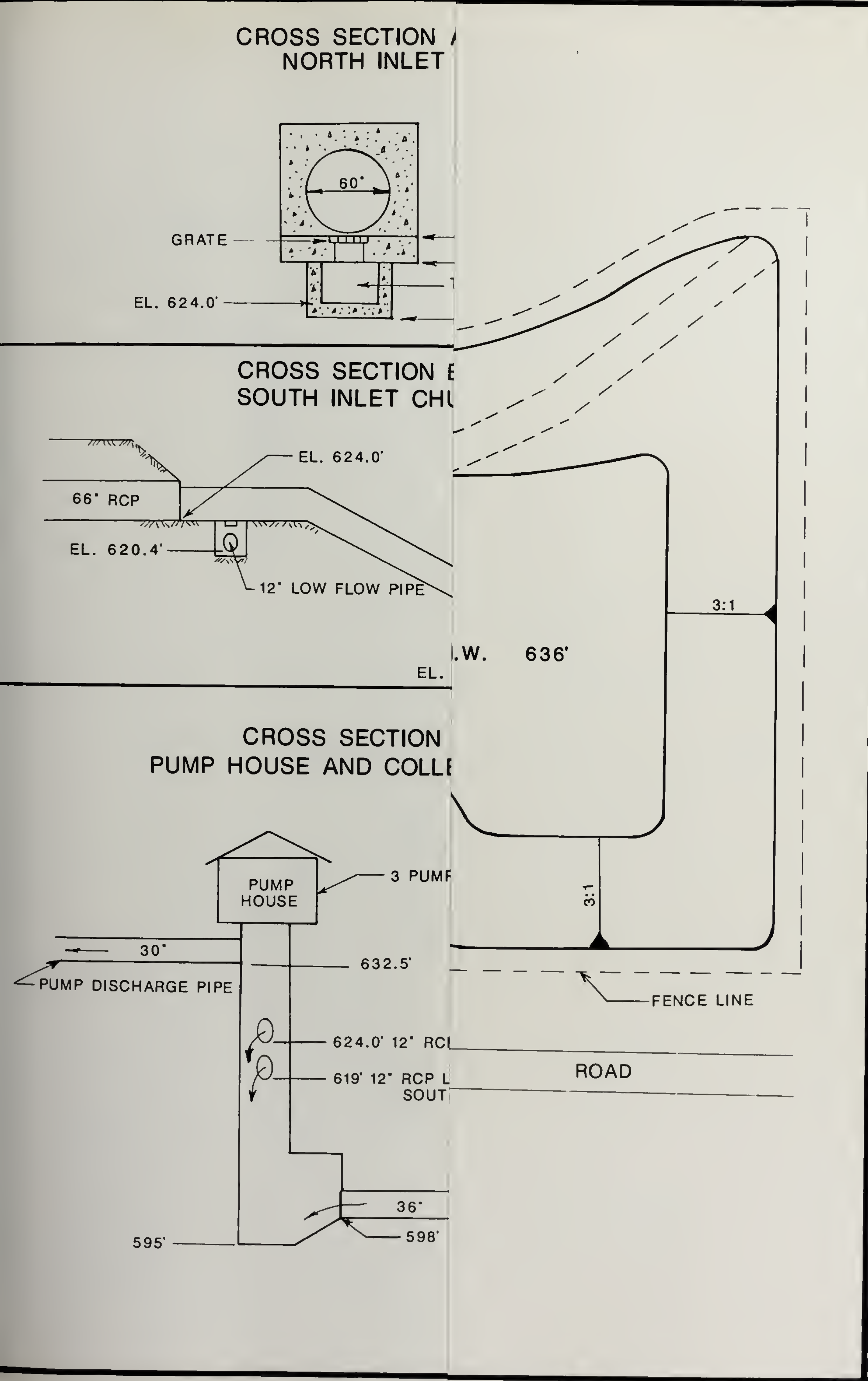
Donohue
Engineers & Architects

AUGUST, 1988

LOWER ELMHURST RESERVOIR (Proposed Completion Unknown)
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
9
PAGE
B-9

FILE NO. IL. 172



Donohue
Engineers & Architects

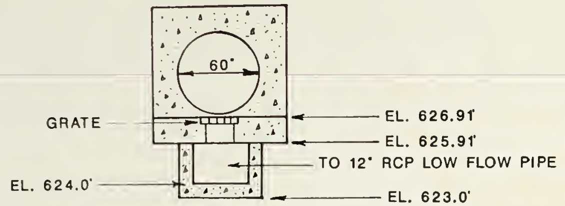
AUGUST, 1988

HILLSIDE RETENTION RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

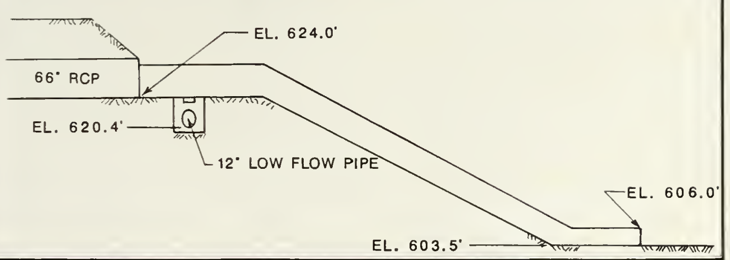
FIGURE
10
PAGE
B-10

FILE NO. IL. 173

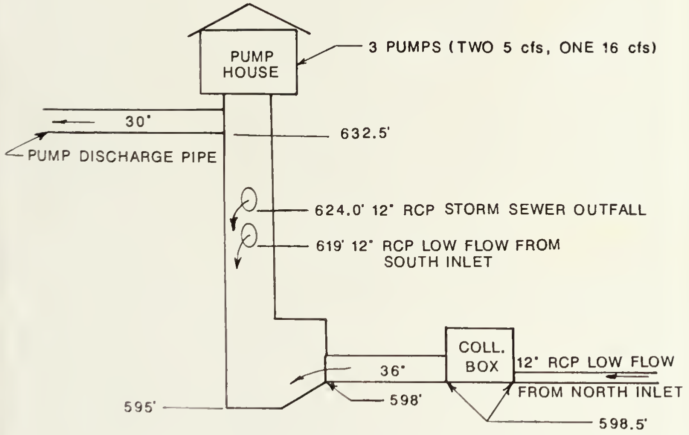
CROSS SECTION A-A
NORTH INLET

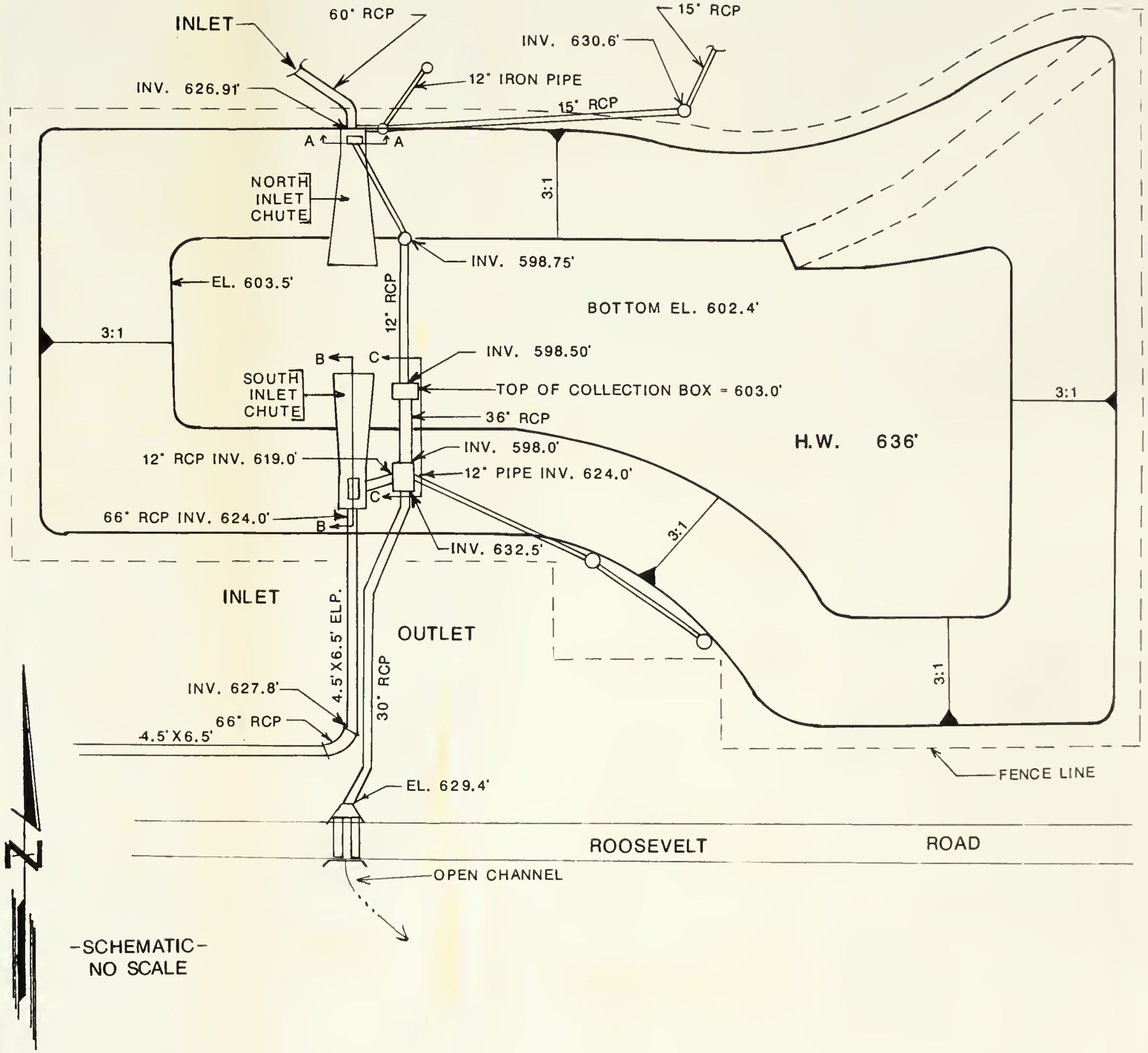


CROSS SECTION B-B
SOUTH INLET CHUTE



CROSS SECTION C-C
PUMP HOUSE AND COLLECTION BOX


PUMP HOUSE
3 PUMPS (TWO 5 cfs, ONE 16 cfs)
30"
PUMP DISCHARGE PIPE
632.5'
624.0' 12" RCP STORM SEWER OUTFALL
619' 12" RCP LOW FLOW FROM SOUTH INLET
COLL. BOX
36"
12" RCP LOW FLOW FROM NORTH INLET
595'
598'
598.5'



Donohue
Engineers & Architects

AUGUST, 1988

HILLSIDE RETENTION RESERVOIR
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
10

PAGE
B-10

FILE NO. IL. 173

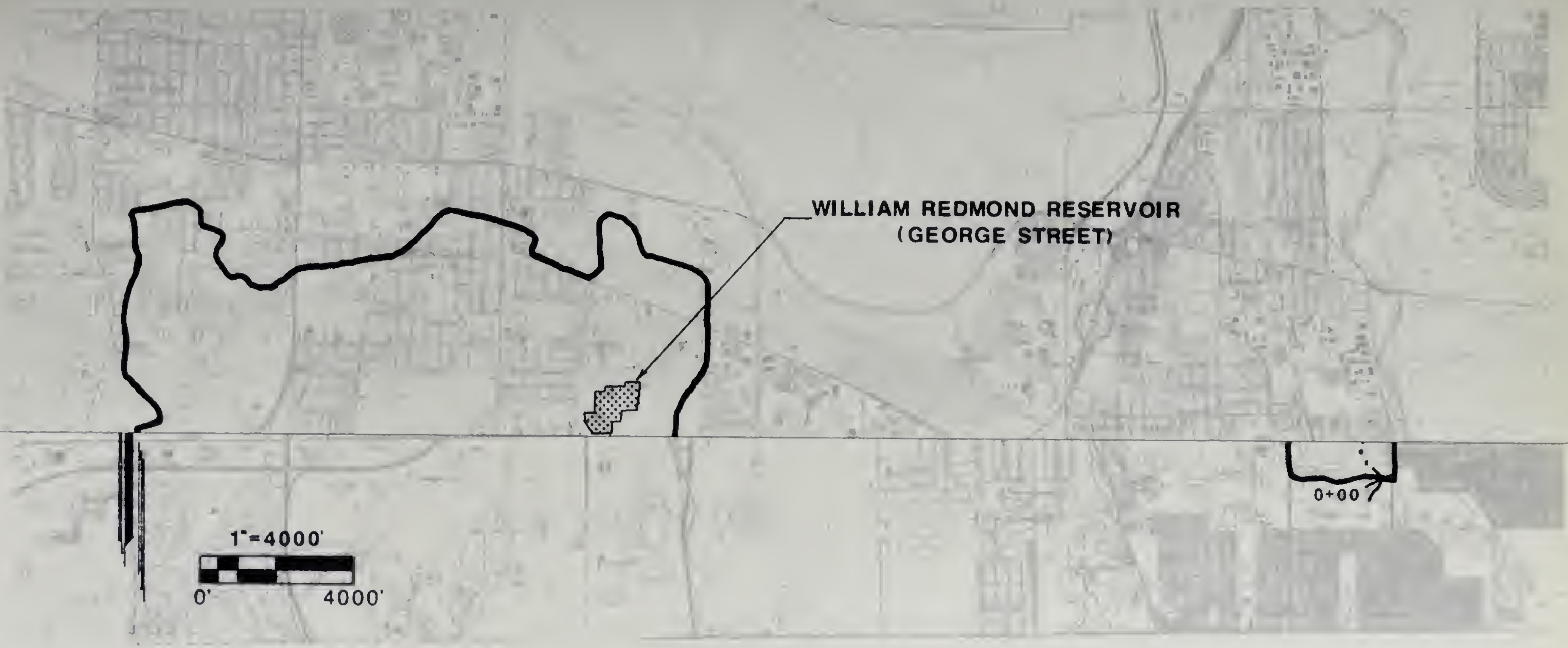


FIGURE
11
PAGE
B-11

CONTROL POINTS
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

PROJ. NO. 16025
FILE NO. IL. 183

AUGUST, 1988

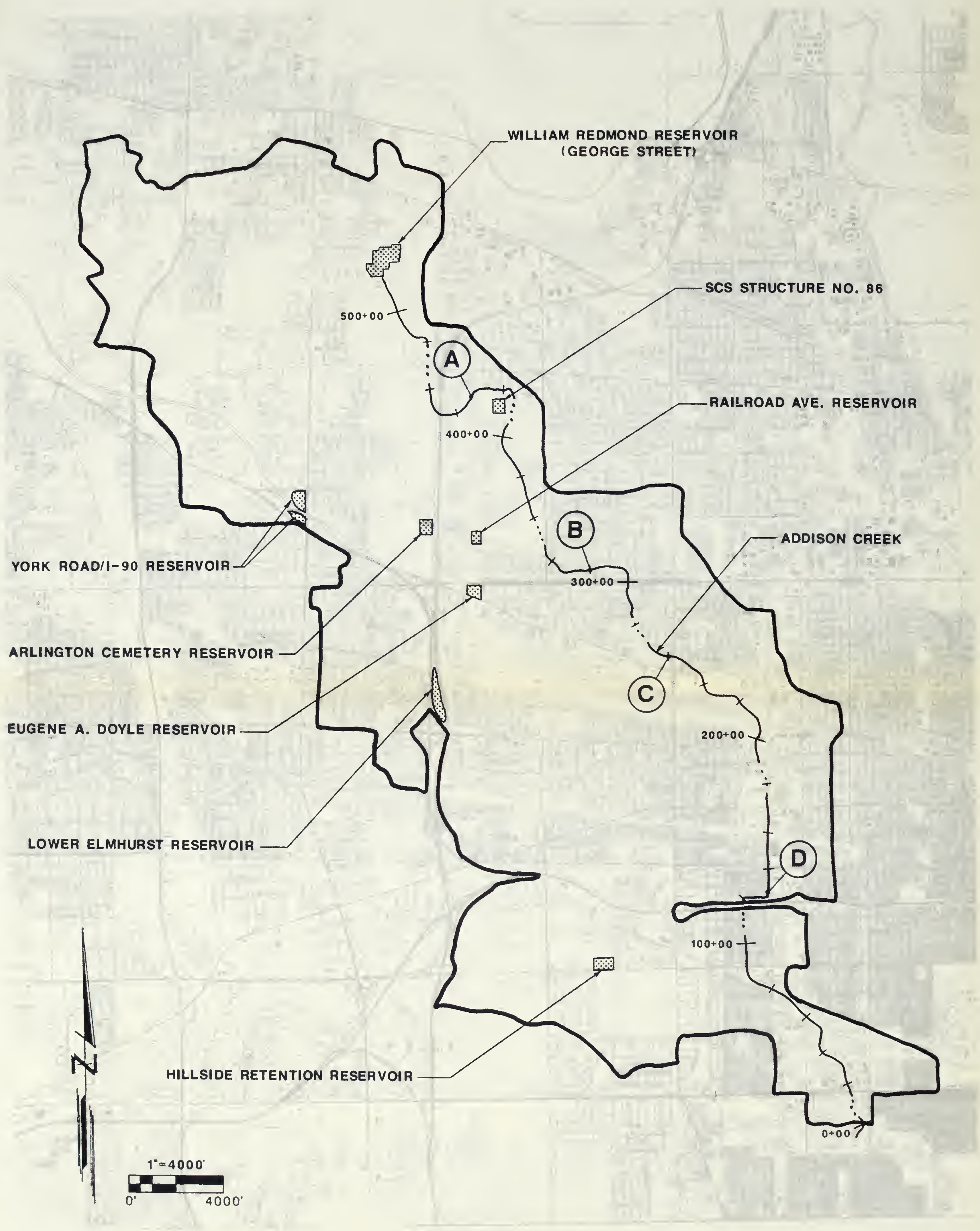


FIGURE
11
PAGE
8-11

CONTROL POINTS
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

PROJ NO 16025
FILE NO IL 183

AUGUST, 1988

APPENDIX C

GLOSSARY OF TERMS

GLOSSARY OF TERMS

ACRE-FOOT	The volume of water required to cover an area of 1-acre to a depth of 1-foot or 43,560 cubic feet. (1 acre-foot = 1,230 cubic meters.)
ANTECEDENT MOISTURE CONDITIONS	Soil moisture before the beginning of a rainfall event. The Soil Conservation Service defines AMC in terms of total rainfall during the five days immediately preceding the rainfall event. Dry AMC conditions mean less than 1.4 inches, average is 1.4 to 2.1 inches, and wet is greater than 2.1 inches.
BACKWATER	The increase in stage, or elevation of the water surface, on the upstream side of a bridge, pipe, culvert, or other channel obstruction above that which would occur in the absence of the bridge or culvert.

BANK	The term Bank with regard to a river is equivalent to the term Shore with regard to a sea or lake. Either the term Bank or Shore can be applied to a reservoir impounded on a river.
BASE FLOW	The discharge of a stream for the conditions of groundwater flow only, typically presented in cubic feet per second.
CHANNEL	Linear, continuous, low-lying area in a floodplain normally occupied by a river or stream and having moderate to steep side slopes.
CONTROL STRUCTURE	A structure at the discharge point of a D/R (detention/retention) facility intended to control the rate of discharge from the facility and the normal water level within the facility. With respect to flow control, the structure is usually designed to safely pass extremely high flows, minimize discharge during all other runoff events, and provide for slow discharge from the D/R facility subsequent to runoff events.

CUBIC FEET PER SECOND (cfs)	(Commonly referred to as c.f.s. or second-feet). The equivalent rate of discharge of water flowing in a channel of rectangular cross section, 1-foot wide and 1-foot deep at an average velocity of 1-foot per second (1 c.f.s. = 0.0283 cubic meters per second).
DETENTION FACILITY	A stormwater facility that is normally dry but is designed to fill temporarily during rainfall-runoff events. Examples of types of detention facilities include: natural swales with crosswise earthen berms as control structures, excavated or natural surface depressions, underground reservoirs or tanks, and roof top storage.
DIVIDE	Imaginary line indicating the limits of a subbasin or watershed. Topographic maps supplemented with data on storm sewers and channels and field investigation are used to locate divides.
EMBANKMENT	Fill material, usually earth or rock, placed with sloping sides and with a width greater than its height.

ENCROACHMENT LIMITS	Boundaries of the floodway and used to indicate the maximum extent of lateral floodplain development which could occur and still allow for conveyance of the regulatory flood.
FLOOD	A general and temporary condition of partial or complete inundation of normally dry land areas caused by the overflow or rise of rivers, stream or lakes.
FLOODPLAIN	Wide, flat to gently sloping area contiguous with and usually lying on both sides of a channel. A natural creek or river may be expected to overflow its channel banks and occupy a portion of its floodplain on the average of once every two years.
FLOODPLAIN MANAGEMENT	The full range of public policy and action for ensuring wise use of floodplains. It includes all aspects of collection and dissemination of flood control information to acquisition of floodplain lands and the enactment and administration of codes, ordinances, and statutes for land use in the floodplain.

FLOODPROOFING	Modifications to an existing or new structure or facility to minimize flood damage. Floodproofing may involve any combination of structural provisions, changes, or adjustments to properties and structures subject to flooding.
FLOOD STAGE PROFILE	A graph of water surface elevation versus distance along a river or stream. The profile may correspond to a historic flood event or an event of specified recurrence interval. The channel bottom, as well as bridges, culverts, and dams are usually shown on the flood stage profile.
FLOODWAY	A designated portion of the 100-year recurrence interval floodplain that will convey the 100-year flood discharge with specified small, upstream and downstream stage increases (e.g., limited to 0.1 feet in Illinois). The floodway includes the channel and defines that portion of the floodplain not suited for human habitation, because of the hazard to life and property. The floodway sometimes includes areas having depths and velocities in excess of established values.

FREEBOARD	The vertical distance from the design water surface to the point of overtopping of a channel, dike, floodwall, dam, or control structure. Freeboard is intended to accommodate the possible effect of obstructions, such as ice build-up and debris blockage, and wind that could increase stages above the design water surface.
GABIONS	Rock-filled wire baskets used to protect and stabilize the bottom and side walls of channels.
HYDRAULICS	Study of the physical behavior of water as it flows within sewers and channels; on floodplains under and over bridges, culverts, dams and control structures; and through detention/ retention facilities, lakes and reservoirs.
HYDROGRAPH	A graph of discharge, on the vertical axis, versus time, on the horizontal axis. A hydrograph shows the volume of the stream flow passing a point--the area beneath the curve--and the time--variation of discharge rate as it passes.

HYDROLOGIC SOIL GROUP	Classification of soils into four groups, designated A, B, C, and D, based on properties affecting runoff, with group A having the lowest runoff potential and group D the highest.
HYDROLOGY	Study of the physical behavior of water from its occurrence as precipitation to its entry into streams, detention/retention facilities, lakes, and reservoirs and its return to the atmosphere via evaporation.
IMPERVIOUSNESS	The portion of a subbasin or watershed, usually expressed as a percentage of the total area, that is covered by surfaces such as roof tops, parking lots, sidewalks, driveways, streets and highways. Impervious surfaces are important because they will not absorb rainfall and, therefore, cause almost all of the rainfall to appear as stormwater runoff.
LEVEE	A continuous dike, berm, or embankment of earth constructed to prevent flooding of certain areas of land.

ONE HUNDRED YEAR FLOOD (100-YEAR)	A flood, representative of large floods known to have occurred, that has a frequency of occurrence or exceedence of once in every 100 years. There is a one percent chance that a 100-year flood may occur or be exceeded in any year. A flood with a magnitude equal to or greater than the 100-year flood would be expected to occur an average of once every 100 years.
OVERTOP	Rising of the water level in a lake or detention/retention basin to a point where water flows over the top of the structure.
PRINCIPAL COMPONENTS OF A STORM WATER SYSTEM	Detention/retention facilities and the large channels and storm sewers that constitute a continuous system or major storage and conveyance facilities traversing a watershed. This system is intended to safely convey stormwater runoff within the watershed and, in some cases, prevent an adverse increase in discharges and volumes

	downstream of the watershed. Principal components of the stormwater system are contrasted with the secondary elements which consists of swales, smaller channels, roadside ditches, and storm sewers intended to safely convey stormwater runoff away from residential, commercial, and industrial areas and into the principal system.
RECURRENCE INTERVAL	The average time interval, usually in years, between the occurrence of a flood or other hydrologic event of a given magnitude or larger. The reciprocal, or inverse, of recurrence interval is the probability (chance) of occurrence, in any year, of a flood equalling or exceeding a specified magnitude.
RETENTION FACILITY	A stormwater storage facility that normally holds water at a controlled level to serve functions such a recreational, aesthetic, and water supply. Stormwater runoff is temporarily stored above the controlled stage. Examples of types of retention storage reservoirs are permanent ponds in residential and commercial areas and in open spaces.

RUNOFF CURVE NUMBER	Identifies one of a series of rainfall-runoff relationships commonly used in U.S. Soil Conservation Service hydrologic procedures. The larger the runoff curve number, the greater the percentage of rainfall that will become runoff. The runoff curve number is a function of soil type, land use, and land management practices.
SPILLWAY	A structure over or through which flood flows are discharged.
STAGE	Elevation of the water surface above a given datum.
STORMWATER CONTROL FACILITY	A storm sewer, channel, roadside ditch, culvert, or detention/retention facility intended to convey or store storm runoff.
STORMWATER MANAGEMENT	The planning and implementation of a combination of structural and non-structural measures, regulations, manuals, and policies intended to reconcile the stormwater conveyance and storage

function of the natural landscape with the land use needs of the urban population. Specific purposes of stormwater management include: reducing danger to human health and safety, minimizing damage to private and public property, protecting the quality of surface and groundwater, reducing the cost of utilities and services, minimizing disruption of neighborhood and community affairs, maintenance or enhancement of the quality of the urban environment, and equitable allocation of costs.

STORMWATER RUNOFF	That portion of the rainfall or snowmelt that moves on or immediately beneath the land surface to receiving waters such as streams and lakes. Stormwater runoff is distinguished from groundwater discharge in that the former occurs during or immediately after rainfall or snowmelt events at a highly variable rate, whereas the latter occurs continuously at a relatively uniform rate. Stormwater runoff can lead to flooding and is the principal means by which some potential pollutants are transported from the land surface to receiving waters.

STORMWATER SYSTEM MODEL	A digital computer program that contains mathematical expressions representing various physical units--for example, a length of storm sewer--in a typical stormwater system. The program simulates the important behavioral aspects of the real system thus permitting a thorough analysis of the system and an investigation of the consequences of hypothetical changes to the system.
SUBBASIN	The smallest unit into which the land surface is subdivided for hydrologic studies. All the area within a subbasin discharges at one point. Subbasin boundaries are determined by surface topography and by the layout of the storm sewer and channel system.
SWALE	A natural or constructed open channel usually lined with grass and having a mild longitudinal slope and a triangular or trapezoidal cross-section with mild side slopes. Swales usually carry significant flows only during or immediately after rainfall or snowmelt events. Swales vary in size from small conveyances providing drainage along roadways and behind or between buildings to large waterways forming the

	principal components of a stormwater system for a subbasin or watershed. Man-made swales should have cross-section shapes and longitudinal and lateral slopes designed to carry the design flow without damage or unsightly erosion/sedimentation.
TAILWATER	Water surface elevation downstream of a dam, roadway embankment, or other hydraulic structure.
TIME OF CONCENTRATION	Time necessary for surface runoff to reach the outlet of the drainage area from the most remote point in the drainage area. The term "remote" is used to denote the point most remote in time, not necessarily distance, from the outlet of the drainage area.
TOP WIDTH	1. The thickness or width of a dam or levee at the level of the top of the dam or levee. 2. The width of a channel or swale measured, respectively, from top-of-bank to top-of-bank or from top-of-swale to top-of-swale.

WATERSHED	A drainage area composed of two or more subbasins.

R/IDOT/AE8

APPENDIX D

HYDROLOGIC ANALYSIS DATA

APPENDIX D

TABLE OF CONTENTS

HEC-1 Subbasin Parameter Summary

HEC-1 Rainfall Depths

HEC-1 Rainfall Distribution

HEC-1 Input/Output

RP/IDOT/AF7

TABLE D-1

ADDISON CREEK
HEC-1 SUBBASIN PARAMETER SUMMARY

Subbasin Number	Area[1] (sq. mi.)	Time of Conc. [2] (t_c = hrs)	Clark Storage Coeff.[3] (R = hrs)	% Imp. [4]	CN[5]
10	0.90	1.28	1.38	42	78
20	3.09	3.13	3.38	21	77
40	0.39	0.81	0.87	22	76
41	0.32	1.45	1.57	24	78
42	1.05	1.10	1.19	63	76
50	0.32	1.37	1.48	42	74
51	0.50	1.19	1.29	13	74
52	0.23	0.71	0.77	51	75
60	0.82	2.81	3.03	38	76
70	0.48	1.68	1.81	47	75
80	0.12	0.73	0.79	34	77
81	0.25	2.05	2.21	38	76
90	1.05	1.68	1.81	27	78
100	0.31	0.62	0.67	43	77
120	0.75	1.48	1.60	11	80
121	0.47	0.87	0.94	39	77
122	0.32	0.92	0.99	51	77
123	0.19	0.80	0.86	23	78
124	0.91	0.91	0.98	29	77
125	0.04	0.32	0.35	39	77
130	0.53	1.21	1.31	37	78
131	0.12	0.55	0.59	25	78
140	0.28	2.37	2.56	3	80
145	1.08	4.75	5.13	32	77
150*	0.30	1.15	1.24	47	78
151*	0.30	1.15	1.24	47	78
160	2.46	1.66	1.79	28	78
170	0.66	1.93	2.08	38	78
180	1.20	2.42	2.61	24	77
181	1.02	1.44	1.56	30	74
190	0.77	2.45	2.65	47	75

*Not Contributing to this model except during the 2-, and 5-year events.

NOTES:

1. Total Area (not including Subbasins 150 and 151) = 20.6 sq. mi.
2. From UC Cards Field #1
3. From UC Cards Field #2 - R + 1.08* t^c
4. From LS Cards Field #3
5. From LS Cards Field #2 (Excluding impervious area.)

TABLE D-2

HEC-1 RAINFALL DEPTHS*
INPUT SUMMARY

		JR CARD**					
DURATION	PB CARD	2-YR	5-YR	10-YR	25-YR	50-YR	100-YR
3-Hour	4.8	0.313	0.458	0.563	0.708	0.875	1.0
6-Hour	5.8	0.310	0.448	0.552	0.707	0.845	1.0
12-Hour	6.9	0.319	0.449	0.536	0.696	0.841	1.0
24-Hour	8.4	0.310	0.429	0.524	0.679	0.857	1.0
48-Hour	9.2	0.315	0.424	0.522	0.674	0.815	1.0

* From Illinois State Water Survey Technical Letter 13, December, 1970.

** JR Card value multiplied by the PB card value equals the depth of rainfall for an event.

RP/IDOT/AF8

TABLE D-3

ADDISON CREEK
HEC-1 RAINFALL DISTRIBUTION*
INPUT SUMMARY

	DURATION				
FIELD NO.	3-HOUR	6-HOUR	12-HOUR	24-HOUR	48-HOUR
PC CARD 1					
1	0	0	0	0	0
2	12	12	3	3	2
3	26	26	6	6	5
4	40	40	10	10	7
5	51	51	13	13	10
6	59	59	16	16	12
7	65	65	20	20	15
8	71	71	23	23	18
9	75	75	27	27	21
10	78	78	33	33	24
PC CARD 2					
1	82	82	39	39	27
2	84	84	46	46	31
3	87	87	56	56	35
4	89	89	68	68	39
5	91	91	79	79	44
6	93	93	85	85	50
7	95	95	89	89	58
8	96	96	92	92	68
9	97	97	95	95	83
10	99	99	97	97	93
PC CARD 3					
1	100	100	100	100	100
IN CARD FIELD NO.					
1	9	18	36	72	144

* From Illinois State Water Survey Report of Investigation 82, 1976.

RP/IDOT/AF8

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10

   1          ID   FILE NAME: ADD24HR.DAT/OUT.  LAST EDIT:  8/25/88
   2          ID   CLIENT:  ILLINOIS DEPT. OF TRANSPORTATION/DIVISION OF WATER RESOURCES
   3          ID   PROJECT: ADDISON CREEK STORMWATER MANAGEMENT SYSTEM STUDY - PHASE II
   4          ID   CONSULTANT: DONOHUE & ASSOCIATES, INC.
   5          ID   DONOHUE PROJECT NO: 16025.100
   6          ID   HYDROGRAPHS DEVELOPED USING:
   7          ID         * SCS CURVE NUMBER METHOD
   8          ID         * CLARK'S UNIT HYDROGRAPH
   9          ID         * TL-13 RAINFALL
  10          ID         * HUFF'S RAINFALL DISTRIBUTION
  11          ID   MODIFIED PULS CHANNEL ROUTINGS ON ADDISON CREEK (DEVELOPED FROM HEC-2).
  12          ID   UNSTABLE MODIFIED PULS ROUTINGS ARE MARKED WITH => * KO     1
  13          ID   ...TO OBTAIN DETAILED OUTPUT, REMOVE STAR AND SPACE
  14          ID   NSTPS ADJUSTED TO REFLECT REACH LENGTHS WITH VELOCITY = 2 FT./SEC.
  15          ID   EVENTS: 2-, 5-, 10-, 25-, 50-, 100-YEAR   DURATION: 24-HR
  16          IT      15                     300
  17          IN      72
  18          IO       5
  19          JR    PREC    .310    .429    .524    .679    .857     1.0

  20          KK   SU820
  21          KM
  22          BA    3.09
  23          BF    -0.8    -.05     1.0
  24          PB     8.4
  25          PC       0       3       6      10      13      16      20      23      27      33
  26          PC      39      46      56      68      79      85      89      92      95      97
  27          PC     100
  28          BF
  29          LS              77      21
  30          UC    3.13    3.38

  31          KK    DT20 WILLIAM REDMOND RESERVOIR WEST WEIR DIVERSION
  32          KM     EL.     653     654   654.6
  33          DT   WRWWR
  34          DI       0      26     156     266     353    1053
  35          DQ       0       0     106     213     300    1000

  36          KK   SU810
  37          KM          BASE FLOW OF THREE CFS RELEASED FROM WASTEWATER TREATMENT PLANT
  38          BA     0.9
  39          BF     3.0    -.05     1.0
  40          LS              78      42
  41          UC    1.28    1.38

  42          KK    DT10 WILLIAM REDMOND RESERVOIR NORTH WEIR DIVERSION
  43          KM     EL.     654   655.2
  44          DT   WRNWR
  45          DI       0      22     119    1037
  46          DQ       0       0      82    1000
```

```
LINE         ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  47         KK    DT20 RETREIVE REDMOND WEST WEIR DIVERSION
  48         KM         RETRIVE FLOW
  49         DR   WRWWR

  50         KK    DT10 RETREIVE REDMOND NORTH WEIR DIVERSION
  51         KM         RETREIVE FLOW
  52         DR   WRNWR

  53         KK   DT1020
  54         KM         COMBINE WEST AND NORTH WEIR INFLOWS
  55         HC       2

  56         KK  RR1020 ROUTE REDMOND RESERVOIR INFLOW THROUGH RESERVOIR
  57         KM   NOTE: RESERVOIR INFLOWS NOT LIMITED BY STORM SEWER CAPACITY
  58         RS       1    ELEV     632
  59         SV      0.    42.5      54   111.3   216.3    335.   467.5    650.   687.5    735.
  60         SV   964.5
  61         SE    625.   630.8    632.    635.    640.    645.    650.    655.    656.    657.
  62         SE    660.
  63         SQ       0       0     62.    260.    638.   1550.   3040.
  64         SE    625.    657.   657.2   657.5    658.    659.    660.

  65         KK      20 WILLIAM REDMOND RESERVOIR BYPASS AND RESERVOIR OUTFLOW COMBINED
  66         KM         COMBINE DT20 AND DT10 LEFTOVER AND RR1020
  67         HC       3

  68         KK   2060A ROUTE 20 THROUGH 60 TO RIVER STATION 48100
  69         KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
             * KO     1
  70         RS       3    FLOW      -1
  71         SQ      50      70     100     200     400     800    1200    1500
  72         SV     5.1     6.8    20.4    20.7    55.2   144.4   163.2   225.1

  73         KK   2060B ROUTE 20 THROUGH 60 FROM RIVER STATION 48100 TO TRISTATE TOLLWAY
  74         KM   OPEN CHANNEL MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
             * KO     1
  75         RS       3    FLOW      -1
  76         SQ      50      70     100     200     400     800    1200    1500
  77         SV    11.9    16.0    28.5    30.0    34.0    76.4   151.0   225.7

  78         KK   SUB52
  79         KM
  80         BA    0.23
  81         LS              75      51
  82         UC    0.71    0.77

  83         KK    RR52
  84         KM   ROUTE THROUGH YORK RD/I-90 RESERVOIR
  85         KM   NOTE: RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
             * KO     1
  86         RS       1    STOR      -1
  87         SV       0       0       0       0     0.1      11    17.1    24.4     100
  88         SQ       0    0.84     3.1     6.5     8.0     9.0     9.5    10.0      30
  89         SE     674   674.4   674.9   675.6   677.5     681     682     683     684
```

```
LINE      ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


  90      KK    5240
  91      KM    PIPE ROUTE FROM RESERVOIR TO DRAINAGE DITCH
  92      RK    2800  0.0034   0.015            CIRC    1.75

  93      KK    5240 ROUTE 52 THROUGH 40
  94      KM   OPEN CHANNEL FLOW @ 1.5 FT/S
          * KO     1
  95      RS       2    FLOW      -1
  96      RC    0.05    0.04    0.05    5500  0.0055     665
  97      RX       0      50      90     114     122     146     186     236
  98      RY     668     662     656     650     650     656     662     668

  99      KK   SUB42
 100      KM
 101      BA    1.05
 102      UC    1.10    1.19
 103      LS              76      63

 104      KK    SS42 LIMIT FLOW FROM SUB42 TO CAPACITY OF STORM SEWERS (DOUBLED)
 105      KM    DELAY PEAK 0.65 HOURS
          * KO     1
 106      RS       3    FLOW       0
 107      SV       0       1    1000
 108      SQ       0     200     220

 109      KK   SUB41
 110      KM
 111      BA    0.32
 112      UC    1.45    1.57
 113      LS              78      24

 114      KK    SS41
 115      KM    LIMIT FLOW FROM SUB41 TO CAPACITY OF STORM SEWERS (DOUBLED)
          * KO     1
 116      RS       1    FLOW       0
 117      SV       0       1    1000
 118      SQ       0     100     110

 119      KK   SUB40
 120      KM
 121      BA    0.39
 122      BF    -0.8    -.05     1.0
 123      LS              76      22
 124      UC    0.81    0.87

 125      KK      40
 126      KM   COMBINE SUBBASINS IN 40 SERIES TRIBUTARY
 127      HC       3
```

```
                                        HEC-1 INPUT                                                   PAGE  4

LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 128          KK     40
 129          KM   COMBINE 20, 52, AND 40
 130          HC      3

 131          KK   4060  ROUTE 40 OUTFLOW THROUGH 60
 132          KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 133          RS      1    FLOW      -1
 134          SQ     50      70     100     200     400     800
 135          SV    2.4     2.9     3.8     5.9    10.5    20.5

 136          KK   SU860
 137          KM
 138          BA   0.82
 139          BF   -0.8    -.05     1.0
 140          LS             76      38
 141          UC   2.81    3.03

 142          KK     60
 143          KM   COMBINE 40 AND 60
 144          HC      2

 145          KK   DT60         -STRUCTURE 86 DIVERSION
 146          KM    EL.     647   647.2   647.6     648   648.5     649   649.5   650.5  650.33
 147          DT   STR86
 148          DI      0     165     186     245     325     440     601     829    1406    1583
 149          DQ      0       0       6      30      65     119     183     256     424     584

 150          KK   DT60   RETRIEVE FLOW INTO STRUCTURE 86
 151          KM
 152          DR   STR86

 153          KK   RR60   ROUTE INFLOW TO STRUCTURE 86
 154          KM          RESERVOIR ROUTING
 155          RS      1    ELEV     613
 156          SV      0       3      15      32      65     127     221     285     289     295
 157          SV    299     307     314     322     329     337     348
 158          SQ      0       0       0       0       0       0       0       0       6      30
 159          SQ     65     119     183     256     337     424     584
 160          SE    613     616     620     624     628     634     642     647   647.2   647.6
 161          SE  648.0   648.5   649.0   649.5   650.0   650.5  651.33

 162          KK     60   STRUCTURE 86 OUTFLOW AND BYPASS COMBINED
 163          KM   COMBINE DT60 LEFTOVER AND RR60 OUTFLOW
 164          HC      2

 165          KK   6070 ROUTE 60 THROUGH SUB70
 166          KM    OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 167          RS      4    FLOW      -1
 168          SQ     50      70     100     200     400     800    1200    1500
 169          SV   44.2    47.7    52.3    67.6    98.0   140.6   187.9   216.7
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 170          KK   SUB51  (BASE FLOW FROM SPORTSMANS CLUB)
 171          KM   INFLOW HYROGRAPH TO ARLINGTON CEMETARY RESERVOIR
 172          BA     0.5
 173          BF    -0.8    -.05     1.0
 174          LS              74      13
 175          UC    1.19    1.29

 176          KK    DT51
 177          KM   DIVERT FLOWS INTO ARLINGTON RESERVOIR
 178          KM   NOTE: RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
 179          DT  ARLING
 180          DI       0     0.8     3.4    21.4      46      80     118     162   209.5     260
 181          DI     314     430     491
 182          DQ       0       0       0      15     392      72     109     152     198     248
 183          DQ     301     415     475

 184          KK    DR51
 185          KM   RETRIEVE FLOWS DIVERTED INTO RESERVOIR
 186          DR  ARLING

 187          KK    RR51
 188          KM . ROUTE THROUGH RESERVOIR
              * KO     1
 189          RS       1    STOR       0
 190          SV       0     5.2      32      66      67      68      69      70
 191          SQ       0       0       0       0      38     111     217     336
 192          SE   636.5     640     648     656   656.2   656.4   656.6   656.8

 193          KK  OUTF51
 194          KM   COMBINE BYPASS AND SPILLWAY FLOWS
 195          HC       2

 196          KK    5150
 197          KM   ROUTE ARLINGTON RESERVOIR OUTFLOWS THROUGH SUB50
              * KO     1
 198          RS       1    FLOW      -1
 199          RC    0.05    0.04    0.05    1400   0.006     660
 200          RX       0      20      55      80      85     110     170     200
 201          RY     660     655     650     647     647     650     655     660

 202          KK   SUB50
 203          KM
 204          BA    0.32
 205          LS              74      42
 206          UC    1.37    1.48

 207          KK      50
 208          KM   COMBINE 5150 AND SUB50
 209          HC       2
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 210          KK    DT50 RAILROAD RESERVOIR SPILLWAY FLOW DIVERSION
 211          KM         ZERO BYPASS FLOW ASSUMED (GATE CLOSED)
 212          KM   NOTE: PART OF RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
 213          DT   RRRES
 214          DI        0     0.1      10     100    1000
 215          DQ        0    0.09    9.99   99.99  999.99

 216          KK    DR50 RETREIVE RAILROAD RESERVOIR FLOW DIVERSION
 217          KM         RETREIVE FLOW
 218          DR   RRRES

 219          KK    RR50 RAILROAD RESERVOIR
 220          KM         RESERVOIR ROUTING
              * KO      1
 221          RS        1    STOR       0
 222          SV        0     0.2     1.7     8.2    17.1    28.3      42
 223          SE    626.4     628     630     636     642     648     654
 224          SQ        0       0      30      90     175     295     419     578
 225          SE    626.4     652   652.5     653   653.5     654   654.4     655

 226          KK    RR50 COMBINE RESERVOIR OUTFLOWS WITH BYPASS FLOW
 227          KM         COMBINE DT50 (0 CFS) AND RR50
 228          HC        2

 229          KK    RR50 OUTFALL DOWNSTREAM OF RAILROAD RESERVOIR
 230          KM   RESERVOIR ROUTE THROUGH 45"X29" HEP W/ CAPACITY=35CFS BEFORE FLOWING TO CREEK
 231          RS        1    STOR       0
 232          SV        0     1.0      10
 233          SQ        0      35     500
 234          SE        0     1.0      10

 235          KK   SUB70
 236          KM
 237          BA     0.48
 238          BF     -0.8    -.05     1.0
 239          LS               75      47
 240          UC     1.68    1.81

 241          KK       70
 242          KM   COMBINE 50, 60, AND 70
 243          HC        3

 244          KK   SUB80
 245          KM
 246          BA     0.12
 247          LS               77      34
 248          UC     0.73    0.79

 249          KK       80
 250          KM   COMBINE 70 AND 80
 251          HC        2
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 252          KK    8090 ROUTE 80 THROUGH 90
 253          KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 254          RS       3    FLOW      -1
 255          SQ      50      70     100     200     400     800    1200
 256          SV     9.4    11.6    14.7    26.5    75.5   271.7   472.3

 257          KK   SUB90
 258          KM
 259          BA    1.05
 260          BF    -0.8    -.05     1.0
 261          LS              78      27
 262          UC    1.68    1.81

 263          KK      90
 264          KM   COMBINE 80 AND 90
 265          HC       2

 266          KK  SUB100
 267          KM
 268          BA    0.31
 269          LS              77      43
 270          UC    0.62    0.67

 271          KK  PMP100
 272          KM   PUMPED FLOW FROM MANHEIM PUMP STATION
 273          RS       1    STOR       0
 274          SV       0     0.1     1.9     2.6     4.5     500
 275          SQ       0       0       0       0       0       0
 276          SE     594   607.3   612.0   613.3   618.0     630
 277          WP   606.5      18   604.5
 278          WP   609.5      18   605.5
 279          WP   612.5      18   608.5   MANHM
 280          KM    MANNHEIM PUMP STATION NOT MODELED BECAUSE OPERATION IS BASED ON SENSOR
 281          KM    OUTPUTS WHICH CANNOT BE SIMULATED USING HEC-1.  THUS. THE PUMP STATION
 282          KM    IS ASSUMED TO BE INOPERATIVE (SUB 100 CONTRIBUTES ENTIRELY)

 283          KK     100
 284          WR   MANHM
              * KK DT100 DIVERT THE PUMP FLOWS OUT OF THE SYSTEM
              * DT DT100
              * DI     0   10000
              * DQ     0   10000

 285          KK   DT100 MANHEIM PUMP STATION DISCHARGE
 286          KM          COMBINE PMP100 AND DT100 (0 CFS)
 287          HC       2

 288          KK     100
 289          KM   COMBINE 100 AND 90
 290          HC       2
```

```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 291            KK  100130 ROUTE 100 THROUGH 130 TO 120 OUTLET
 292            KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
                * KO     1
 293            RS       3    FLOW      -1
 294            SQ      50      70     100     200     400     800    1200
 295            SV     1.3     1.6     2.1     3.3    19.1   100.3   173.4

 296            KK   SUB81
 297            KM
 298            BA    0.25
 299            LS              76      38
 300            UC    2.05    2.21

 301            KK  SUB122
 302            KM
 303            BA    0.32
 304            LS              77      51
 305            UC    0.92    0.99

 306            KK     122
 307            KM   COMBINE 81 AND 122, INFLOW HYROGRAPH TO NW STR. AT DOYLE RES.
 308            HC       2

 309            KK   DT122
 310            KM   DIVERSION INTO DOLYE RESERVOIR FROM NW STRUCTURE
 311            DT  NDOYLE
 312            DI       0    5000
 313            DQ       0    5000

 314            KK  SUB125
 315            KM   INFLOW HYDROGRAPH TO DOYLE RESERVOIR FROM THE SOUTH
 316            BA    0.04
 317            LS              77      39
 318            UC    0.32    0.35

 319            KK   DT125
 320            KM   DIVERSION INTO DOLYE RESERVOIR FROM SW STRUCTURE
 321            DT  SDOYLE
 322            DI       0      12    1012
 323            DQ       0       0    1000

 324            KK  BYP125
 325            KM   COMBINE DOLYE RESERVOIR BYPASS HYDROGRAPHS
 326            HC       2

 327            KK   DR122
 328            KM   RETRIEVE DIVERTED FLOWS FROM THE NW STRUCTURE
 329            DR  NDOYLE
```

```
LINE           ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 330           KK   DR125
 331           KM   RETRIEVE DIRVERTED FLOWS FROM THE SW STRUCTURE
 332           DR  SDOYLE

 333           KK   DOYLE
 334           KM   COMBINE FLOWS IN DOYLE RESERVOIR
 335           KM   NOTE: RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
 336           HC        2

 337           KK   DOYLE
 338           KM   DETERMINE VOLUME IN DOYLE RESERVOIR
 339           RS        1    STOR       0
 340           SV        0       3      31      73      93     200
 341           SE   626.5     630     640     653     658     670
 342           SQ      0.     20.     30.     40.      80
 343           SE    659.    660.    661.    662.     670

 344           KK      125 TOTAL BYPASS AND OUTFLOW FROM DOYLE RESERVOIR
 345           KM          COMBINE BYP125 AND DT122
 346           HC        2

 347           KK  125121 ROUTE DOYLE OUTFLOWS DOWN LAKE STREET
 348           KM   10500 FT. OF PIPE FLOW @ 4FT/S
 349           RS        3    STOR       1
 350           SV        0     6.8     100
 351           SQ        0      38      40
 352           SE        0     6.8     100

 353           KK  SUB121
 354           KM
 355           BA    0.47
 356           BF    -0.8    -.05     1.0
 357           LS              77      39
 358           UC    0.87    0.94

 359           KK      121
 360           KM   COMBINE 125 AND 121
 361           HC        2

 362           KK  SUB123
 363           KM
 364           BA    0.19
 365           LS              78      23
 366           UC     0.8    0.86

 367           KK  SUB124
 368           KM
 369           BA    0.91
 370           LS              77      29
 371           UC    0.91    0.98
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 372          KK     124
 373          KM   COMBINE 123 AND 124
 374          HC       2

 375          KK   RR124 LOWER ELMHURST PROPOSED RESERVOIR
 376          KM         OVERFLOW WEIR AT 664.0
 377          KM   NOTE: RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
 378          RS       1    STOR       0
 379          SV       0      .2      .8     1.8     3.7     6.0     8.0    18.0    18.0    18.0
 380          SV      20      25      27
 381          SQ       0    13.5      19      22      26      27      27      41      49      80
 382          SQ     126     281     805
 383          SE   658.5   660.0  660.25   660.5   661.0   661.5   662.0   664.0   664.1   664.3
 384          SE   664.5   665.0   666.0
 385          WP   661.0      50   660.5
 386          WP   661.4      50   661.0
 387          WP   661.8      50   661.4
 388          WP   662.2      50   661.8   UPPER

 389          KK   UPPER RETRIEVE FLOW INTO UPPER ELMHURST RESERVOIR
 390          KM
 391          WR   UPPER

 392          KK   RTEUP UPPER ELMHURST PROPOSED RESERVOIR
 393          KM
              * KO     1
 394          RS       1    STOR       0
 395          SV       0     0.2     2.0     5.8    10.4      29    50.0    73.5    85.7      86
 396          SV    87.5      89    94.7    98.7
 397          SQ       0       0       0       0       0       0       0       0       0     200
 398          SQ     300     300     300     300
 399          SE   660.8   661.0   662.0   663.0   664.0   668.0   672.0   676.0   678.0   678.1
 400          SE  678.25   678.5     679     680

 401          KK   LOWER
 402          KM   COMBINE UPPER OVERFLOW AND LOWER OVERFLOW PLUS BYPASS
 403          HC       2

 404          KK  124120 ROUTE LOWER ELMHURST OUTFLOWS THROUGH SUB120
 405          KM   OPEN CHANNEL FLOW @ 1.5 FT/S
              * KO     1
 406          RS       5    FLOW      -1
 407          RC    0.06   0.035    0.06   10700  0.0008     650
 408          RX       0      18      28      40      43      49      75      80
 409          RY   639.6   639.0   638.8   634.7   634.7   639.4   639.6   642.0

 410          KK  SUB120
 411          KM
 412          BA    0.75
 413          BF    -0.8    -.05     1.0
 414          LS              80      11
 415          UC    1.48    1.60
```

```
LINE           ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 416           KK     120
 417           KM   COMBINE 124 AND 120
 418           HC       2

 419           KK   SS120
 420           KM    LIMIT FLOW FROM 120 TO CAPACITY OF 6' X 3.5' STORM SEWER (TRIPLED)
               * KO     1
 421           RS       1    FLOW       0
 422           SV       0       1    1000
 423           SQ       0     180     190

 424           KK     120
 425           KM   COMBINE 121, SS120, AND 100
 426           HC       3

 427           KK  SUB130
 428           KM
 429           BA    0.53
 430           BF    -0.8    -.05     1.0
 431           LS              78      37
 432           UC    1.21    1.31

 433           KK   SS130
 434           KM    LIMIT FLOW FROM SUB130 TO CAPACITY OF STORM SEWERS (DOUBLED)
               * KO     1
 435           RS       1    FLOW       0
 436           SV       0       1    1000
 437           SQ       0     120     140

 438           KK     130
 439           KM    COMBINE 130 WITH 120 COMBINED FLOWS
 440           HC       2

 441           KK  130131  ROUTE 130 THROUGH 131
 442           KM    OPEN CHANNEL-MODIFIED PULS FROM HEC-2 OUTPUT
 443           RS       2    FLOW      -1
 444           SQ      50      70     100     200     400     800    1200
 445           SV     5.8     7.1     8.8    13.4    22.0    40.0    73.0

 446           KK  SUB131
 447           KM     131
 448           KM
 449           BA    0.12
 450           BF    -0.8    -.05     1.0
 451           UC    0.55    0.59
 452           LS              78      25

 453           KK     131
 454           KM     COMBINE THE 130 SERIES TRIBUTARY
 455           HC       2
```

```
LINE          ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


456           KK  SUB140
457           KM
458           BA    0.28
459           BF    -0.8    -.05     1.0
460           LS              80       3
461           UC    2.37    2.56

462           KK     140
463           KM   COMBINE 140 AND 131
464           HC       2

465           KK  140145 ROUTE 140 THROUGH 145
466           KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
467           RS       2    FLOW      -1
468           SQ      50      70     100     200     400     800    1200
469           SV     6.3     7.5     9.1    14.1    22.1    43.7    96.6
470           KM    THE FOLLOWING CARDS FOR SUB 150 SHOULD BE OMITTED IN
471           KM    ANALYSIS OF LARGE STORM EVENTS (10 YR OR GREATER)
              * KKSUB150
              * KM
              * BA   0.3
              * LS            78      47
              * UC  1.15    1.24
              * KKDIV150
              * KM DIVERT FLOWS IN EXCESS OF BELLWOOD STORM SEWER CAPACITY
              * DTBELLWD
              * DI     0     136     137     500
              * DQ     0       0     137     500

472           KK  SUB145
473           KM
474           BA    1.08
475           BF    -0.8    -.05     1.0
476           LS              77      32
477           UC    4.75    5.13

478           KK   SS145
479           KM    LIMIT FLOW FROM SUB145 TO CAPACITY OF STORM SEWERS
480           RS       1    FLOW       0
481           SV       0       1    1000
482           SQ       0      30      35
483           SE       0       1    1000

484           KK     145 (USGS GAGE 05532000 - ADDISON CREEK AT BELLWOOD)
485           KM   COMBINE 140, 150 AND 145
486           HC       2

487           KK  145160 ROUTE 145 THROUGH 160
488           KM   OPEN CHANNEL FLOW @ 1.5 FT/S
489           RS       2    FLOW      -1
490           SQ      50      70     100     200     400     800    1200    1500    1800
491           SV     6.4     8.0    10.0    15.7    24.8    44.7    84.7   110.5   150.8
```

```
LINE           ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 492           KK  SUB160
 493           KM
 494           BA    2.46
 495           BF    -0.8    -.05     1.0
 496           LS                  78      28
 497           UC    1.66    1.79

 498           KK  RTE160
 499           KM    LIMIT OUTFLOW TO CAPACITY OF STORM SEWERS
               * KO     1
 500           RS       1    FLOW      -1
 501           SV       0       1     200
 502           SQ       0     279     280
 503           KM    THE FOLLOWING CARDS FOR SUB-BASIN 151 SHOULD BE OMITTED IN
 504           KM    ANALYSIS OF LARGE STORM EVENTS (10 YR OR GREATER)
               * KKSUB151
               * BA   0.3
               * LS                  78      47
               * UC  1.15    1.24

 505           KK     160
 506           KM   COMBINE 145, AND 160
 507           HC       2

 508           KK  160170 ROUTE 160 THROUGH 170 TO 180 OUTLET (ROOSEVLET RD.)
 509           KM   OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 510           RS       1    FLOW      -1
 511           SQ      50      70     100     200     400     800    1200    1500    1800
 512           SV     4.9     6.1     7.6    11.9    19.1    30.8    50.3    79.8   105.2

 513           KK  SUB181
 514           KM
 515           BA    1.02
 516           BF    -0.8    -.05     1.0
 517           LS                  74      30
 518           UC    1.44    1.56

 519           KK     181
 520           KM   OUTFLOW FROM HILLSIDE RESERVOIR
 521           KM   NOTE: RESERVOIR INFLOW IS NOT LIMITED BY STORM SEWER CAPACITY
 522           RS       1    ELEV   602.3
 523           SV       0     3.5      12    22.5      42      66      91     119     120     123
 524           SV     125     135
 525           SQ       0       0       0       0       0       0       0       0      27     106
 526           SQ     300    1500
 527           SE   602.3     606     610     614     620     626     631     636   636.2   636.5
 528           SE     637     639

 529           KK  181180
 530           KM   ROUTE HILLSIDE RESERVOIR FLOWS THROUGH SUB180
 531           RS       1    STOR       0
 532           SV       0       3     100
 533           SQ       0      83      85
 534           SE       0       3     100
```

```
LINE            ID.......1.......2.......3.......4.......5.......6.......7.......8.......9......10


 535            KK  SUB180
 536            KM
 537            BA     1.2
 538            BF    -0.8    -.05     1.0
 539            LS              77      24
 540            UC    2.42    2.61

 541            KK  RTE180
 542            KM   LIMIT OUTFLOW TO CAPACITY OF STORM SEWERS
                * KO     1
 543            RS       1    FLOW      -1
 544            SV       0       1     200
 545            SQ       0     175     176

 546            KK     180
 547            KM  COMBINE 160, 181, AND 180 (HILLSIDE)
 548            HC       3

 549            KK  180170 ROUTE 180 THROUGH 170
 550            KM  OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 551            RS       1    FLOW      -1
 552            SQ      50      70     100     200     400     800    1200    1500    1800
 553            SV     2.8     3.3     4.2     6.8    11.0    17.5    26.4    37.5    48.4

 554            KK  SUB170
 555            KM
 556            BA    0.66
 557            BF    -0.8    -.05     1.0
 558            LS              78      38
 559            UC    1.93    2.08

 560            KK     170
 561            KM  COMBINE 170 AND 180
 562            HC       2

 563            KK  170190 ROUTE 170 THROUGH 190
 564            KM  OPEN CHANNEL-MODIFIED PULS ROUTING FROM HEC-2 OUTPUT
 565            RS       3    FLOW      -1
 566            SQ      50      70     100     200     400     800    1200    1500    1800
 567            SV    10.5    12.9    16.2    26.3    42.9    66.1    87.1   103.8   117.7

 568            KK  SUB190
 569            KM
 570            BA    0.77
 571            BF    -0.8    -.05     1.0
 572            LS              75      47
 573            UC    2.45    2.65

 574            KK   MOUTH
 575            KM  ADDISON CREEK AND SALT CREEK CONFLUENCE
 576            HC       2
 577            ZZ
```

```
                                        ****
                    FLOOD HYDROGRAPH PACKAGE HEC-1 (IBM XT 512K VERSION) -FEB 1.1985
        U.S. ARMY CORPS OF ENGINEERS, THE HYDROLOGIC ENGINEERING CENTER, 609 SECOND STREET, DAVIS, CA. 95616
                                        ****




                FILE NAME: ADD24HR.DAT/OUT.  LAST EDIT:  8/25/88
                CLIENT:  ILLINOIS DEPT. OF TRANSPORTATION/DIVISION OF WATER RESOURCES
                PROJECT: ADDISON CREEK STORMWATER MANAGEMENT SYSTEM STUDY - PHASE II
                CONSULTANT: DONOHUE & ASSOCIATES, INC.
                DONOHUE PROJECT NO: 16025.100
                HYDROGRAPHS DEVELOPED USING:
                      * SCS CURVE NUMBER METHOD
                      * CLARK'S UNIT HYDROGRAPH
                      * TL-13 RAINFALL
                      * HUFF'S RAINFALL DISTRIBUTION
                MODIFIED PULS CHANNEL ROUTINGS ON ADDISON CREEK (DEVELOPED FROM HEC-2).
                UNSTABLE MODIFIED PULS ROUTINGS ARE MARKED WITH => * KO     1
                ...TO OBTAIN DETAILED OUTPUT, REMOVE STAR AND SPACE
                NSTPS ADJUSTED TO REFLECT REACH LENGTHS WITH VELOCITY = 2 FT./SEC.
                EVENTS: 2-, 5-, 10-, 25-, 50-, 100-YEAR   DURATION: 24-HR

18 IO         OUTPUT CONTROL VARIABLES
                    IPRNT           5  PRINT CONTROL
                    IPLOT           0  PLOT CONTROL
                    QSCAL          0.  HYDROGRAPH PLOT SCALE

  IT          HYDROGRAPH TIME DATA
                     NMIN          15  MINUTES IN COMPUTATION INTERVAL
                    IDATE      1    0  STARTING DATE
                    ITIME        0000  STARTING TIME
                       NQ         300  NUMBER OF HYDROGRAPH ORDINATES
                   NDDATE      4    0  ENDING DATE
                   NDTIME        0245  ENDING TIME

                COMPUTATION INTERVAL     .25 HOURS
                     TOTAL TIME BASE   74.75 HOURS

      ENGLISH UNITS

  JP          MULTI-PLAN OPTION
                    NPLAN           1  NUMBER OF PLANS

  JR          MULTI-RATIO OPTION
                  RATIOS OF PRECIPITATION
                  .31       .43
                  .52       .68
                  .86      1.00
```

```
*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      100. TO      200.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      100. TO      400.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO        7.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      277. TO    13347.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      200.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      100.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      111. TO      336.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN       56. TO    15620.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      175. TO      578.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN       50. TO      200.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      200.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN     1611. TO     3888.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      180.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      120.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
```

```
*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      279.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN      106. TO     1500.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)

*** WARNING *** MODIFIED PULS ROUTING MAY BE NUMERICALLY UNSTABLE FOR OUTFLOWS BETWEEN        0. TO      175.
                THE ROUTED HYDROGRAPH SHOULD BE EXAMINED FOR OSCILLATIONS OR OUTFLOWS GREATER THAN PEAK INFLOWS.
                THIS CAN BE CORRECTED BY DECREASING THE TIME INTERVAL OR INCREASING STORAGE (USE A LONGER REACH.)
```

```
                    PEAK FLOW AND STAGE (END-OF-PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
                                   FLOWS IN CUBIC FEET PER SECOND,  AREA IN SQUARE MILES
                                                  TIME TO PEAK IN HOURS


                                                                  RATIOS APPLIED TO PRECIPITATION
OPERATION          STATION       AREA     PLAN              RATIO 1  RATIO 2  RATIO 3  RATIO 4  RATIO 5  RATIO 6
                                                                .31      .43      .52      .68      .86     1.00

HYDROGRAPH AT
                     SUB20       3.09       1     FLOW         198.     328.     439.     626.     845.    1023.
                                                  TIME        18.75    18.75    18.75    18.50    18.50    18.50

DIVERSION TO
                     WRWWR       3.09       1     FLOW         146.     275.     386.     573.     792.     970.
                                                  TIME        18.75    18.75    18.75    18.50    18.50    18.50

HYDROGRAPH AT
+                     DT20       3.09       1     FLOW          51.      53.      53.      53.      53.      53.
                                                  TIME        18.75    17.00    15.75    14.00    12.25    11.25

HYDROGRAPH AT
+                    SUB10        .90       1     FLOW          97.     147.     188.     257.     337.     401.
                                                  TIME        17.00    17.00    17.00    17.00    17.00    17.00

DIVERSION TO
+                    WRNWR        .90       1     FLOW          63.     110.     151.     220.     300.     364.
                                                  TIME        17.00    17.00    17.00    17.00    17.00    17.00

HYDROGRAPH AT
+                     DT10        .90       1     FLOW          34.      37.      37.      37.      37.      37.
                                                  TIME        17.00    15.50    14.50    13.00    11.00    10.50

HYDROGRAPH AT
+                     DT20        .00       1     FLOW         146.     275.     386.     573.     792.     970.
                                                  TIME        18.75    18.75    18.75    18.50    18.50    18.50

HYDROGRAPH AT
+                     DT10        .00       1     FLOW          63.     110.     151.     220.     300.     364.
                                                  TIME        17.00    17.00    17.00    17.00    17.00    17.00

 2 COMBINED AT
+                    DT102        .00       1     FLOW         194.     360.     506.     752.    1041.    1275.
                                                  TIME        18.25    18.00    18.00    17.75    17.75    17.75

ROUTED TO
+                   RR1020        .00       1     FLOW           0.       0.       0.       0.     436.     770.
                                                  TIME          .25      .25      .25      .25    24.50    22.00

                                           ** PEAK STAGES IN FEET **
                                            1     STAGE      638.98   645.08   649.97   656.16   657.73   658.14
                                                  TIME        30.50    32.00    32.75    33.75    24.50    22.00
 3 COMBINED AT
+               20      3.99     1   FLOW        84.       90.       90.       90.      522.      860.
                                     TIME      17.25     17.00     15.75     14.00     24.50     22.00

 ROUTED TO
+            2060A      3.99     1   FLOW        77.       84.       87.       89.      465.      745.
                                     TIME      22.75     22.50     22.50     22.75     27.00     25.25

 ROUTED TO
+            2060B      3.99     1   FLOW        75.       82.       84.       87.      456.      731.
                                     TIME      26.75     27.75     27.75     27.75     28.25     26.50

 HYDROGRAPH AT
+            SUB52       .23     1   FLOW        29.       42.       53.       72.       93.      110.
                                     TIME      16.75     16.75     16.75     16.25     16.25     16.25

 ROUTED TO
+             RR52       .23     1   FLOW         9.       10.       11.       14.       18.       21.
                                     TIME      24.25     24.75     24.75     24.75     24.75     24.75

                              ** PEAK STAGES IN FEET **
                                 1   STAGE    680.63    682.27    683.03    683.19    683.38    683.53
                                     TIME      24.50     24.75     24.75     24.75     24.75     24.75

 ROUTED TO
+             5240       .23     1   FLOW         9.       10.       11.       14.       18.       21.
                                     TIME      24.50     24.75     25.00     25.00     25.00     24.75

 ROUTED TO
+             5240       .23     1   FLOW         9.       10.       11.       14.       18.       21.
                                     TIME      24.75     25.50     25.75     25.75     25.50     25.25

                              ** PEAK STAGES IN FEET **
                                 1   STAGE    650.40    650.44    650.48    650.62    650.79    650.84
                                     TIME      24.75     25.50     25.75     25.75     25.50     25.25

 HYDROGRAPH AT
+            SUB42      1.05     1   FLOW       129.      189.      238.      318.      412.      487.
                                     TIME      17.00     17.00     17.00     17.00     16.75     16.75

 ROUTED TO
+             SS42      1.05     1   FLOW       129.      189.      200.      200.      200.      200.
                                     TIME      17.00     17.00     15.50     14.25     26.25     30.75

 HYDROGRAPH AT
+            SUB41       .32     1   FLOW        31.       48.       63.       87.      115.      137.
                                     TIME      17.25     17.25     17.25     17.25     17.25     17.25

 ROUTED TO
+             SS41       .32     1   FLOW        31.       48.       63.       87.      100.      100.
                                     TIME      17.50     17.50     17.25     17.25     18.00     19.00

 HYDROGRAPH AT
+            SUB40       .39     1   FLOW        35.       57.       76.      107.      144.      173.
                                     TIME      17.00     16.75     16.75     16.75     16.75     16.75
 3 COMBINED AT
+                 40      1.76     1   FLOW        195.      294.      338.      393.      444.      473.
                                       TIME       17.00     17.00     17.00     17.00     16.75     16.75

 3 COMBINED AT
+                 40      5.98     1   FLOW        263.      371.      417.      475.      684.      977.
                                       TIME       17.00     17.00     17.00     17.00     27.75     26.25

ROUTED TO
+               4060      5.98     1   FLOW        261.      368.      416.      473.      679.      975.
                                       TIME       17.25     17.25     17.25     17.25     27.75     26.75

HYDROGRAPH AT
+              SUB60       .82     1   FLOW         64.      100.      131.      182.      242.      291.
                                       TIME       18.50     18.25     18.25     18.25     18.25     18.25

 2 COMBINED AT
+                 60      6.80     1   FLOW        322.      462.      540.      647.      759.     1069.
                                       TIME       17.50     17.25     17.50     17.50     17.50     26.00

DIVERSION TO
+              STR86      6.80     1   FLOW         64.      128.      159.      198.      234.      326.
                                       TIME       17.50     17.25     17.50     17.50     17.50     26.00

HYDROGRAPH AT
+               DT60      6.80     1   FLOW        258.      334.      381.      449.      525.      743.
                                       TIME       17.50     17.25     17.50     17.50     17.50     26.00

HYDROGRAPH AT
+               DT60       .00     1   FLOW         64.      128.      159.      198.      234.      326.
                                       TIME       17.50     17.25     17.50     17.50     17.50     26.00

ROUTED TO
+               RR60       .00     1   FLOW          0.        0.        0.        0.      100.      293.
                                       TIME         .25       .25       .25       .25     30.50     28.50

                                ** PEAK STAGES IN FEET **
                                   1   STAGE     622.46    628.17    631.70    637.55    648.33    649.73
                                       TIME       25.00     26.25     26.75     28.00     30.50     28.50

 2 COMBINED AT
+                 60      6.80     1   FLOW        258.      334.      381.      449.      525.      990.
                                       TIME       17.50     17.25     17.50     17.50     17.50     27.50

ROUTED TO
+               6070      6.80     1   FLOW        249.      320.      372.      441.      517.      974.
                                       TIME       19.25     19.00     19.50     18.75     18.75     29.00

HYDROGRAPH AT
+              SUB51       .50     1   FLOW         36.       62.       84.      122.      167.      204.
                                       TIME       17.25     17.25     17.00     17.00     17.00     17.00

DIVERSION TO
+             ARLING       .50     1   FLOW         36.       62.       79.      113.      157.      192.
```

```
                                       TIME      17.25    17.25    17.75    17.00    17.00    17.00

 HYDROGRAPH AT
+              DT51      .50      1    FLOW         6.       6.       8.       9.      10.      11.
                                       TIME      20.00    13.00    17.00    17.00    17.00    17.00

 HYDROGRAPH AT
+              DR51      .00      1    FLOW        36.      62.      79.     113.     157.     192.
                                       TIME      17.25    17.25    17.75    17.00    17.00    17.00

 ROUTED TO
+              RR51      .00      1    FLOW         0.       0.       0.      45.     137.     192.
                                       TIME        .25      .25      .25    21.75    18.00    17.00

                                  ** PEAK STAGES IN FEET **
                                  1    STAGE    643.87   649.27   653.89   656.22   656.45   656.55
                                       TIME      26.50    27.00    74.75    21.75    18.00    17.00

  2 COMBINED AT
+            OUTF51      .50      1    FLOW         6.       6.       8.      45.     147.     204.
                                       TIME      20.00    13.00    17.00    21.75    18.00    17.00

 ROUTED TO
+              5150      .50      1    FLOW         6.       6.       8.      45.     146.     207.
                                       TIME      14.75    13.00    17.50    22.00    18.25    17.00

                                  ** PEAK STAGES IN FEET **
                                  1    STAGE    647.33   647.34   647.45   648.19   649.06   649.36
                                       TIME      14.75    13.00    17.50    22.00    18.25    17.00

 HYDROGRAPH AT
+             SUB50      .32      1    FLOW        30.      47.      62.      85.     113.     136.
                                       TIME      17.25    17.25    17.25    17.00    17.00    17.00

  2 COMBINED AT
+                50      .82      1    FLOW        30.      47.      70.      94.     243.     343.
                                       TIME      17.25    17.25    17.25    17.25    18.25    17.00

 DIVERSION TO
+             RRRES      .82      1    FLOW        30.      47.      70.      94.     243.     343.
                                       TIME      17.25    17.25    17.25    17.25    18.25    17.00

 HYDROGRAPH AT
+              DT50      .82      1    FLOW         0.       0.       0.       0.       0.       0.
                                       TIME        .25      .25      .25      .25      .25      .25

 HYDROGRAPH AT
+              DR50      .00      1    FLOW        30.      47.      70.      94.     243.     343.
                                       TIME      17.25    17.25    17.25    17.25    18.25    17.00

 ROUTED TO
+              RR50      .00      1    FLOW         3.      20.      44.      94.     238.     347.
                                       TIME      49.25    24.25    19.00    17.50    18.25    17.25

                                  ** PEAK STAGES IN FEET **
```

```
                                      1  STAGE     652.05   652.33   652.61   653.02   653.76   654.17
                                         TIME       49.75    24.25    19.00    17.50    18.25    17.25

 2 COMBINED AT
+                   RR50      .82     1  FLOW          3.      20.      44.      94.     238.     347.
                                         TIME       49.25    24.25    19.00    17.50    18.25    17.25

ROUTED TO
+                   RR50      .82     1  FLOW          3.      20.      41.      92.     227.     329.
                                         TIME       49.75    24.50    19.50    17.75    18.75    17.75

                                      ** PEAK STAGES IN FEET **
                                      1  STAGE        .09      .57     1.12     2.10     4.71     6.69
                                         TIME       52.50    24.50    19.50    17.75    18.75    17.75

HYDROGRAPH AT
+                  SUB70      .48     1  FLOW         47.      71.      92.     127.     167.     199.
                                         TIME       17.50    17.25    17.25    17.25    17.25    17.25

 3 COMBINED AT
+                     70     8.10     1  FLOW        287.     380.     480.     639.     886.    1076.
                                         TIME       18.75    18.75    19.25    18.25    18.50    17.75

HYDROGRAPH AT
+                  SUB80      .12     1  FLOW         12.      19.      25.      35.      46.      55.
                                         TIME       16.75    16.75    16.75    16.75    16.75    16.25

 2 COMBINED AT
+                     80     8.22     1  FLOW        294.     391.     492.     664.     914.    1119.
                                         TIME       18.75    18.50    19.25    18.00    18.50    17.75

ROUTED TO
+                   8090     8.22     1  FLOW        276.     363.     430.     535.     699.     903.
                                         TIME       21.50    21.25    23.25    24.00    23.75    33.00

HYDROGRAPH AT
+                  SUB90     1.05     1  FLOW         92.     147.     193.     270.     359.     431.
                                         TIME       17.50    17.50    17.50    17.25    17.25    17.25

 2 COMBINED AT
+                     90     9.27     1  FLOW        327.     447.     535.     664.     824.     978.
                                         TIME       20.25    20.00    18.75    17.75    22.50    22.25

HYDROGRAPH AT
+                 SUB100      .31     1  FLOW         35.      53.      68.      93.     123.     146.
                                         TIME       16.75    16.75    16.25    16.00    16.00    16.00

PUMP FLOW TO
+                  MANHM      .31     1  FLOW         36.      54.      54.      54.      54.      54.
                                         TIME       15.50    16.25    15.50    13.50    12.00    11.25

HYDROGRAPH AT
+                 PMP100      .31     1  FLOW          0.       0.       0.       0.       0.       0.
                                         TIME         .25      .25      .25      .25      .25      .25
```

```
                                        ** PEAK STAGES IN FEET **
                                        1   STAGE      609.96    612.54    618.01    618.18    618.47    618.75
                                            TIME        15.25     16.00     17.50     18.50     19.25     19.75

 HYDROGRAPH AT
+                     100         .00   1   FLOW          36.       54.       54.       54.       54.       54.
                                            TIME        15.50     16.25     15.50     13.50     12.00     11.25

  2 COMBINED AT
+                   DT100         .31   1   FLOW          36.       54.       54.       54.       54.       54.
                                            TIME        15.50     16.25     15.50     13.50     12.00     11.25

  2 COMBINED AT
+                     100        9.58   1   FLOW         353.      492.      589.      718.      878.     1032.
                                            TIME        18.25     18.50     18.75     17.75     22.50     22.25

 ROUTED TO
+                  100130        9.58   1   FLOW         343.      464.      569.      692.      869.     1022.
                                            TIME        18.75     21.50     21.25     22.00     24.50     24.50

 HYDROGRAPH AT
+                   SUB81         .25   1   FLOW          22.       34.       44.       61.       81.       98.
                                            TIME        17.75     17.75     17.75     17.50     17.50     17.50

 HYDROGRAPH AT
+                  SUB122         .32   1   FLOW          37.       55.       71.       96.      125.      148.
                                            TIME        16.75     16.75     16.75     16.75     16.75     16.75

  2 COMBINED AT
+                     122         .57   1   FLOW          57.       88.      113.      155.      204.      243.
                                            TIME        17.00     17.00     17.00     17.00     17.00     17.00

 DIVERSION TO
+                  NDOYLE         .57   1   FLOW          57.       88.      113.      155.      204.      243.
                                            TIME        17.00     17.00     17.00     17.00     17.00     17.00

 HYDROGRAPH AT
+                   DT122         .57   1   FLOW           0.        0.        0.        0.        0.        0.
                                            TIME          .25       .25       .25       .25       .25       .25

 HYDROGRAPH AT
+                  SUB125         .04   1   FLOW           4.        7.        9.       12.       16.       19.
                                            TIME        15.75     15.75     15.75     15.75     15.75     15.75

 DIVERSION TO
+                  SDOYLE         .04   1   FLOW           0.        0.        0.        0.        4.        7.
                                            TIME          .25       .25       .25     15.75     15.75     15.75

 HYDROGRAPH AT
+                   DT125         .04   1   FLOW           4.        7.        9.       12.       12.       12.
                                            TIME        15.75     15.75     15.75     15.25     14.00     13.50

  2 COMBINED AT
+                  BYP125         .61   1   FLOW           4.        7.        9.       12.       12.       12.
                                            TIME        15.75     15.75     15.75     15.25     14.00     13.50
```

```
HYDROGRAPH AT
+              OR122      .00     1   FLOW          57.        88.       113.       155.       204.       243.
                                      TIME       17.00      17.00      17.00      17.00      17.00      17.00

HYDROGRAPH AT
+              OR125      .00     1   FLOW           0.         0.         0.         0.         4.         7.
                                      TIME         .25        .25        .25      15.75      15.75      15.75

 2 COMBINED AT
+              DOYLE      .00     1   FLOW          57.        88.       113.       155.       206.       248.
                                      TIME       17.00      17.00      17.00      17.00      17.00      17.00

ROUTED TO
+              DOYLE      .00     1   FLOW           0.         0.         6.        28.        48.        61.
                                      TIME         .25        .25      74.75      25.50      25.00      24.75

                                ** PEAK STAGES IN FEET **
                                  1   STAGE     649.23     657.71     659.29     660.81     663.58     666.16
                                      TIME       74.75      74.75      74.50      25.50      25.00      24.75

 2 COMBINED AT
+                125      .61     1   FLOW           4.         7.         9.        30.        52.        66.
                                      TIME       15.75      15.75      15.75      24.00      24.00      24.00

ROUTED TO
+             125121      .61     1   FLOW           6.         6.         8.        28.        38.        38.
                                      TIME         .25      17.75      17.75      27.25      42.50      62.25

                                ** PEAK STAGES IN FEET **
                                  1   STAGE       1.00       1.10       1.42       5.06       6.91       7.96
                                      TIME         .00      17.75      17.75      27.25      43.50      62.25

HYDROGRAPH AT
+             SUB121      .47     1   FLOW          50.        77.        99.       137.       180.       215.
                                      TIME       17.00      16.75      16.75      16.75      16.75      16.75

 2 COMBINED AT
+                121     1.08     1   FLOW          53.        83.       107.       147.       191.       227.
                                      TIME       17.00      17.00      16.75      16.75      16.75      16.75

HYDROGRAPH AT
+             SUB123      .19     1   FLOW          18.        29.        39.        54.        72.        86.
                                      TIME       17.00      16.75      16.75      16.75      16.75      16.75

HYDROGRAPH AT
+             SUB124      .91     1   FLOW          89.       141.       184.       256.       340.       408.
                                      TIME       17.00      17.00      17.00      16.75      16.75      16.75

 2 COMBINED AT
+                124     1.10     1   FLOW         107.       170.       223.       310.       412.       494.
                                      TIME       17.00      17.00      16.75      16.75      16.75      16.75

PUMP FLOW TO
+              UPPER     1.10     1   FLOW         100.       150.       200.       200.       200.       200.
```

```
                                   TIME        17.00    16.00    16.50    15.00    13.50    12.25

 HYDROGRAPH AT
+              RR124      1.10    1   FLOW        27.      27.      29.      95.     207.     298.
                                      TIME     16.75    15.00    16.25    17.25    17.00    16.75

                                  ** PEAK STAGES IN FEET **
                                  1   STAGE   661.42   661.86   662.33   664.37   664.76   665.03
                                      TIME     16.75    15.75    16.25    17.25    17.00    16.75

 HYDROGRAPH AT
+              UPPER       .00    1   FLOW       100.     150.     200.     200.     200.     200.
                                      TIME     17.00    16.00    16.50    15.00    13.50    12.25

 ROUTED TO
+              RTEUP       .00    1   FLOW         0.       0.     172.     208.     238.     268.
                                      TIME       .25      .25    19.50    17.50    15.75    14.50

                                  ** PEAK STAGES IN FEET **
                                  1   STAGE   669.17   676.14   678.09   678.11   678.16   678.20
                                      TIME     23.00    24.00    19.50    17.50    15.75    14.50

  2 COMBINED AT
+              LOWER      1.10    1   FLOW        27.      27.     198.     301.     407.     498.
                                      TIME     16.75    15.00    19.50    17.50    17.00    16.75

 ROUTED TO
+             124120      1.10    1   FLOW        26.      27.      95.     238.     387.     479.
                                      TIME     18.75    18.00    21.00    20.25    18.25    18.00

                                  ** PEAK STAGES IN FEET **
                                  1   STAGE   636.99   637.03   638.78   640.19   641.05   641.48
                                      TIME     18.75    18.00    21.00    20.25    18.25    18.00

 HYDROGRAPH AT
+             SUB120       .75    1   FLOW        64.     105.     139.     196.     262.     314.
                                      TIME     17.50    17.25    17.25    17.25    17.25    17.25

  2 COMBINED AT
+                120      1.85    1   FLOW        89.     132.     167.     361.     622.     781.
                                      TIME     17.50    17.25    17.25    19.50    18.00    17.50

 ROUTED TO
+              SS120      1.85    1   FLOW        89.     132.     167.     181.     182.     183.
                                      TIME     17.50    17.50    17.25    22.75    24.25    25.50

  3 COMBINED AT
+                120     12.51    1   FLOW       464.     613.     767.     926.    1134.    1296.
                                      TIME     18.25    17.25    21.00    24.25    24.25    24.25

 HYDROGRAPH AT
+             SUB130       .53    1   FLOW        54.      84.     109.     149.     197.     235.
                                      TIME     17.00    17.00    17.00    17.00    17.00    17.00

 ROUTED TO
```

```
+               SS130       .53     1   FLOW        54.      84.     108.     120.     120.     121.
                                        TIME     . 17.25    17.25    17.25    18.25    19.25    19.75

 2 COMBINED AT
+                 130     13.04     1   FLOW       513.     697.     816.    1042.    1254.    1417.
                                        TIME      17.75    17.25    17.50    20.25    24.00    24.25

ROUTED TO
+              130131     13.04     1   FLOW       510.     689.     808.    1033.    1246.    1410.
                                        TIME      18.50    18.00    18.50    20.50    24.25    24.75

HYDROGRAPH AT
+              SUB131       .12     1   FLOW        12.      19.      25.      35.      47.      56.
                                        TIME      16.75    16.75    16.75    16.00    16.00    16.00

 2 COMBINED AT
+                 131     13.16     1   FLOW       518.     702.     823.    1043.    1257.    1421.
                                        TIME      18.25    18.00    18.25    20.50    24.25    24.25

HYDROGRAPH AT
+              SUB140       .28     1   FLOW        19.      33.      44.      63.      85.     103.
                                        TIME      18.25    18.00    18.00    18.00    18.00    17.75

 2 COMBINED AT
+                 140     13.44     1   FLOW       537.     734.     867.    1090.    1293.    1462.
                                        TIME      18.25    18.00    18.25    20.25    22.00    24.25

ROUTED TO
+              140145     13.44     1   FLOW       532.     727.     851.    1074.    1290.    1458.
                                        TIME      19.00    18.75    19.75    21.50    24.50    25.00

HYDROGRAPH AT
+              SUB145      1.08     1   FLOW        65.     104.     136.     191.     256.     308.
                                        TIME      20.25    20.00    20.00    20.00    20.00    19.75

ROUTED TO
+               SS145      1.08     1   FLOW        30.      30.      30.      31.      31.      31.
                                        TIME      27.75    30.50    31.50    32.75    34.75    35.00

                                  ** PEAK STAGES IN FEET **
                                    1   STAGE     23.27    58.58    91.45   150.68   224.11   285.53
                                        TIME      28.50    30.75    32.00    33.50    35.00    35.75

 2 COMBINED AT
+                 145     14.52     1   FLOW       562.     757.     881.    1104.    1321.    1489.
                                        TIME      19.00    18.75    19.75    21.50    24.50    25.00

ROUTED TO
+              145160     14.52     1   FLOW       558.     752.     874.    1095.    1319.    1487.
                                       -TIME      19.75    19.25    21.00    22.75    25.25    25.75

HYDROGRAPH AT
+              SUB160      2.46     1   FLOW       218.     347.     455.     635.     845.    1013.
                                        TIME      17.50    17.50    17.25    17.25    17.25    17.25
 ROUTED TO
+               RTE160      2.46    1   FLOW        218.     279.     279.     280.     280.     281.
                                        TIME       17.50    19.00    20.00    21.50    23.00    24.75

  2 COMBINED AT
+                  160     16.98    1   FLOW        732.    1031.    1153.    1375.    1600.    1768.
                                        TIME       18.75    19.25    21.00    22.75    25.25    25.75

 ROUTED TO
+               160170     16.98    1   FLOW        729.    1023.    1151.    1362.    1595.    1764.
                                        TIME       19.25    20.00    21.75    24.00    26.00    26.75

 HYDROGRAPH AT
+               SU8181      1.02    1   FLOW         85.     138.     182.     258.     346.     417.
                                        TIME       17.25    17.25    17.25    17.25    17.25    17.25

 ROUTED TO
+                  181      1.02    1   FLOW          0.       7.      68.     233.     345.     417.
                                        TIME         .25    49.25    22.50    18.25    17.25    17.25

                                    ** PEAK STAGES IN FEET **
                                    1   STAGE     629.91   636.05   636.36   636.83   637.08   637.19
                                        TIME       74.75    47.75    22.50    18.25    17.25    17.25

 ROUTED TO
+               181180      1.02    1   FLOW          0.       7.      65.      84.      85.      86.
                                        TIME         .25    49.50    23.00    23.25    25.25    25.50

                                    ** PEAK STAGES IN FEET **
                                    1   STAGE        .00      .25     2.33    28.19    84.89   135.54
                                        TIME         .00    52.50    23.00    23.50    25.25    25.75

 HYDROGRAPH AT
+               SU8180      1.20    1   FLOW         88.     144.     191.     271.     363.     438.
                                        TIME       18.25    18.00    18.00    18.00    18.00    18.00

 ROUTED TO
+               RTE180      1.20    1   FLOW         88.     144.     175.     175.     175.     176.
                                        TIME       18.25    18.25    19.25    21.00    22.75    24.00

  3 COMBINED AT
+                  180     19.20    1   FLOW        814.    1148.    1317.    1621.    1855.    2026.
                                        TIME       19.00    19.50    22.50    24.00    26.00    26.75

 ROUTED TO
+               180170     19.20    1   FLOW        812.    1146.    1313.    1619.    1854.    2025.
                                        TIME       19.25    20.00    23.00    24.50    26.50    27.00

 HYDROGRAPH AT
+               SU8170       .66    1   FLOW         61.      95.     123.     169.     223.     267.
                                        TIME       17.50    17.50    17.50    17.50    17.50    17.50

  2 COMBINED AT
+                  170     19.86    1   FLOW        863.    1217.    1384.    1677.    1912.    2089.
                                        TIME       19.00    19.50    20.75    24.25    25.00    24.75
```

```
ROUTED TO
+                 170190     19.86     1   FLOW        860.     1213.     1381.     1676.     1911.     2087.
                                           TIME       19.75     20.25     21.00     24.75     25.50     25.50

HYDROGRAPH AT
+                 SUB190       .77     1   FLOW         67.      103.      133.      183.      241.      289.
                                           TIME       18.00     18.00     18.00     18.00     18.00     18.00

 2 COMBINED AT
+                  MOUTH     20.63     1   FLOW        918.     1296.     1476.     1753.     1999.     2193.
                                           TIME       19.50     20.00     20.25     23.75     24.75     24.75


*** NORMAL END OF HEC-1 ***
```

APPENDIX E

HYDRAULIC ANALYSIS DATA

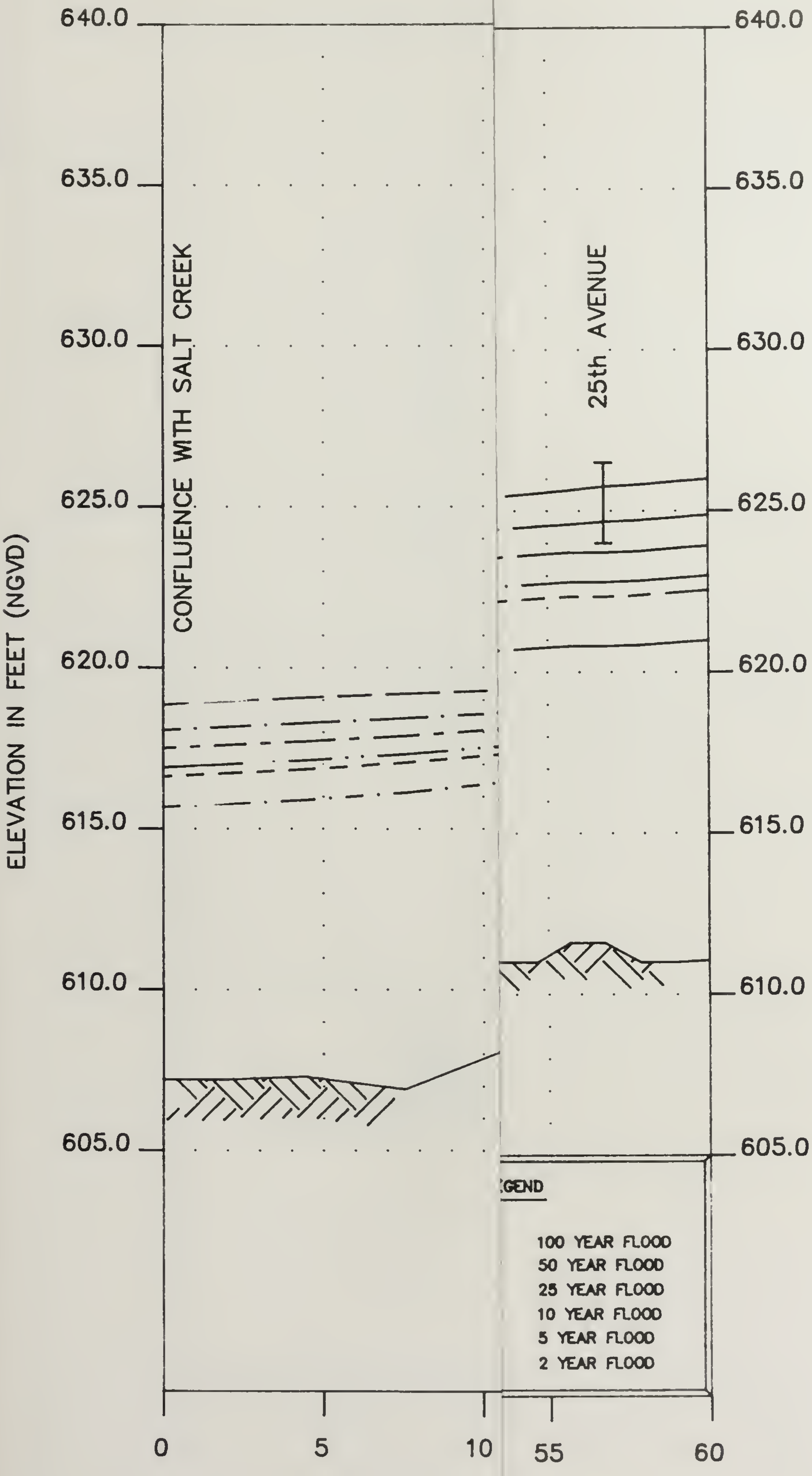
APPENDIX E

TABLE OF CONTENTS

Flood Profiles

HEC-2 Flow Summary

HEC-2 Input/Output



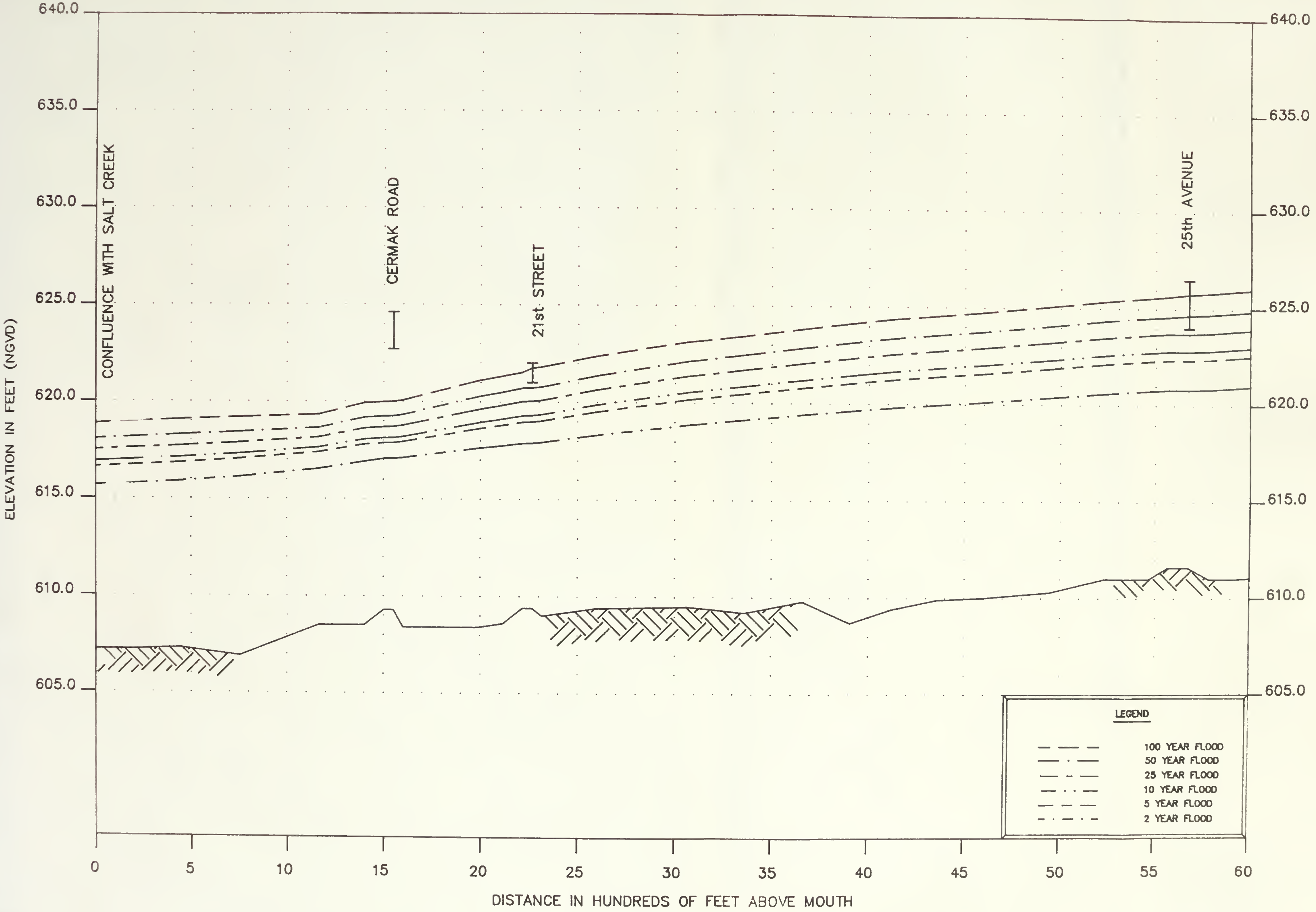
Donohue
Engineers & Architects

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E–1
PAGE
E–1

SEPTEMBER, 1988

FILE NO. IL 184



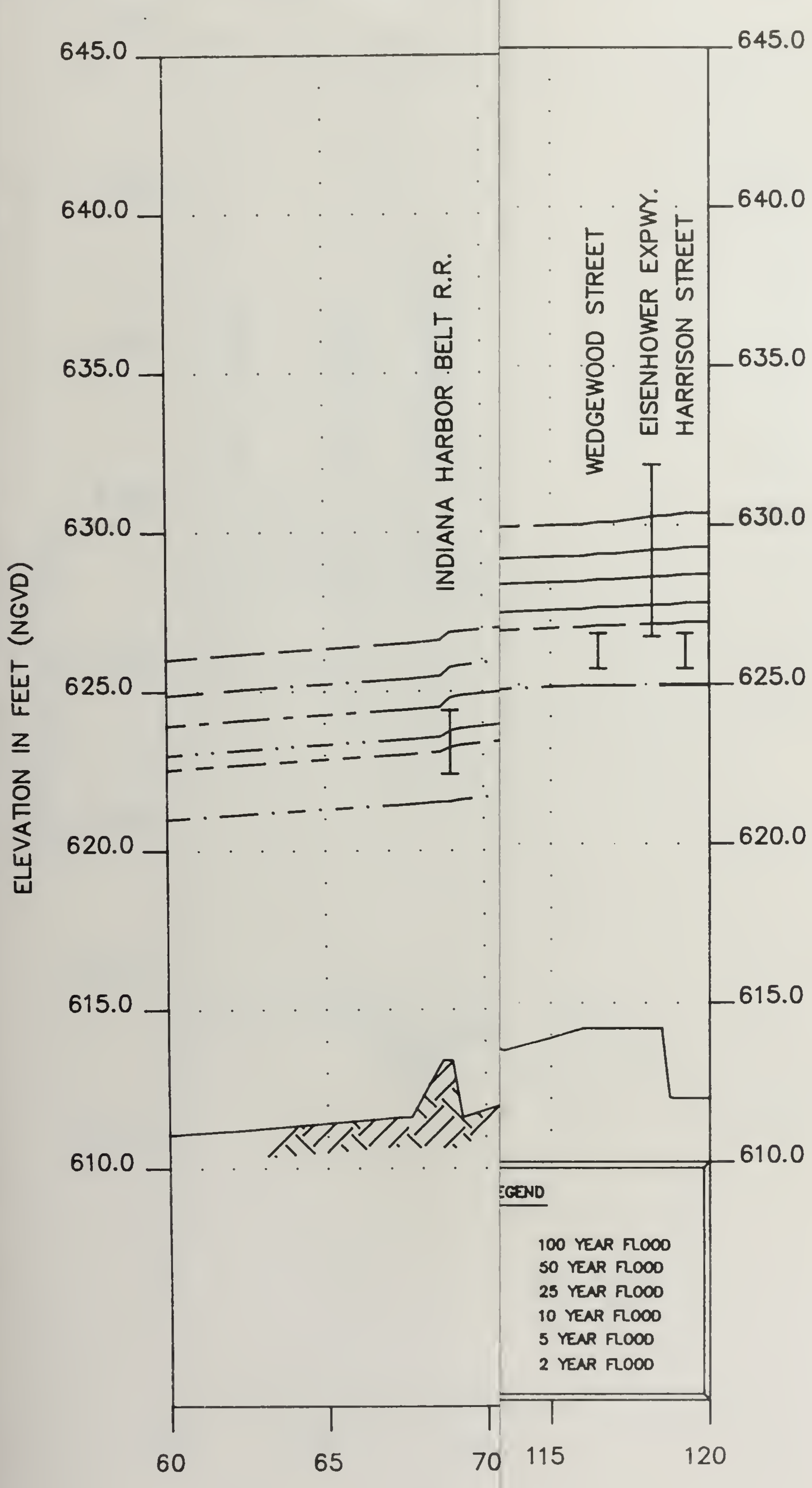
FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

SEPTEMBER, 1988

FIGURE
E-1
PAGE
E-1

FILE NO. IL 184



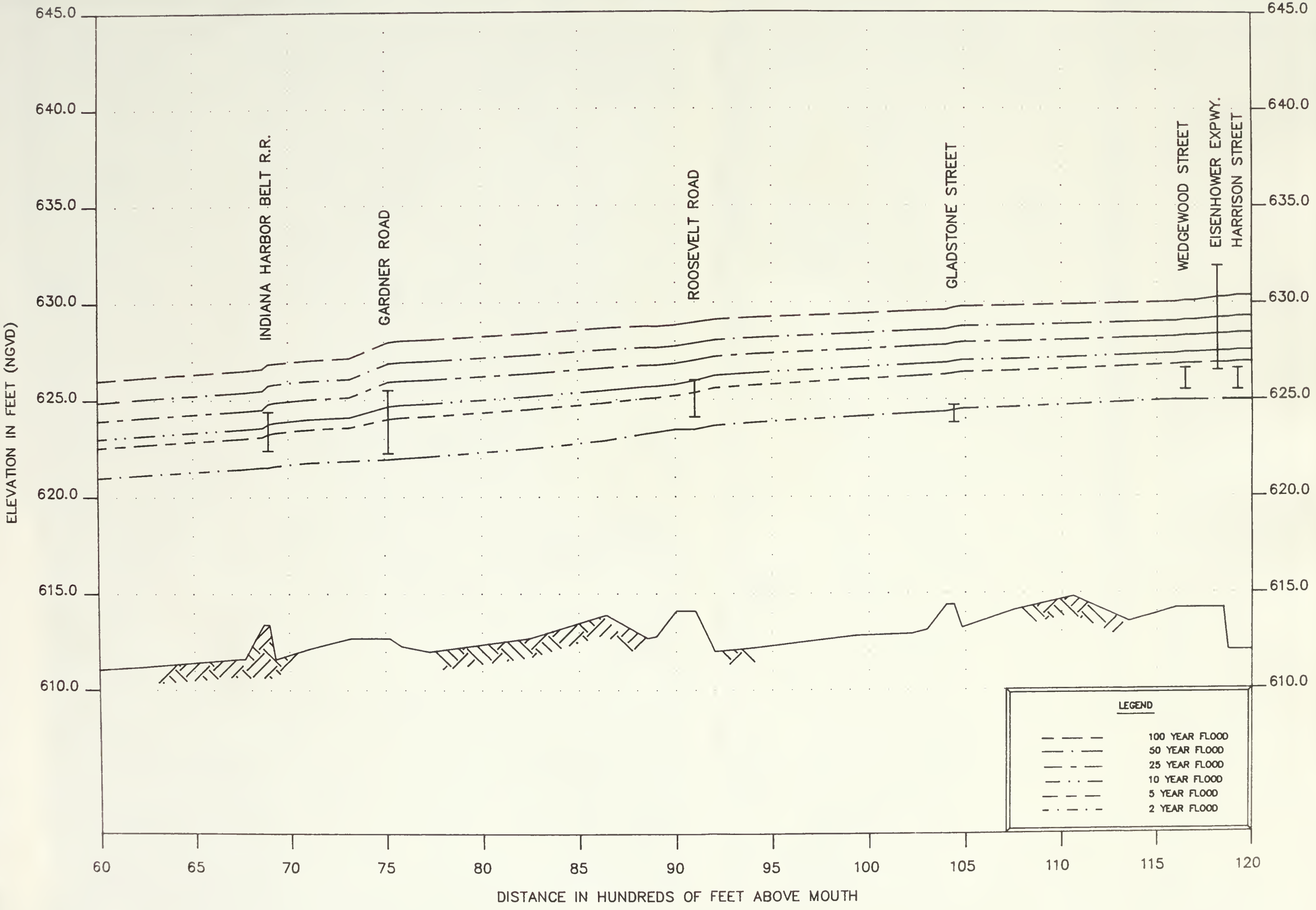
Donohue
Engineers & Architects

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E–2
PAGE
E–2

SEPTEMBER, 1988

FILE NO. IL 185



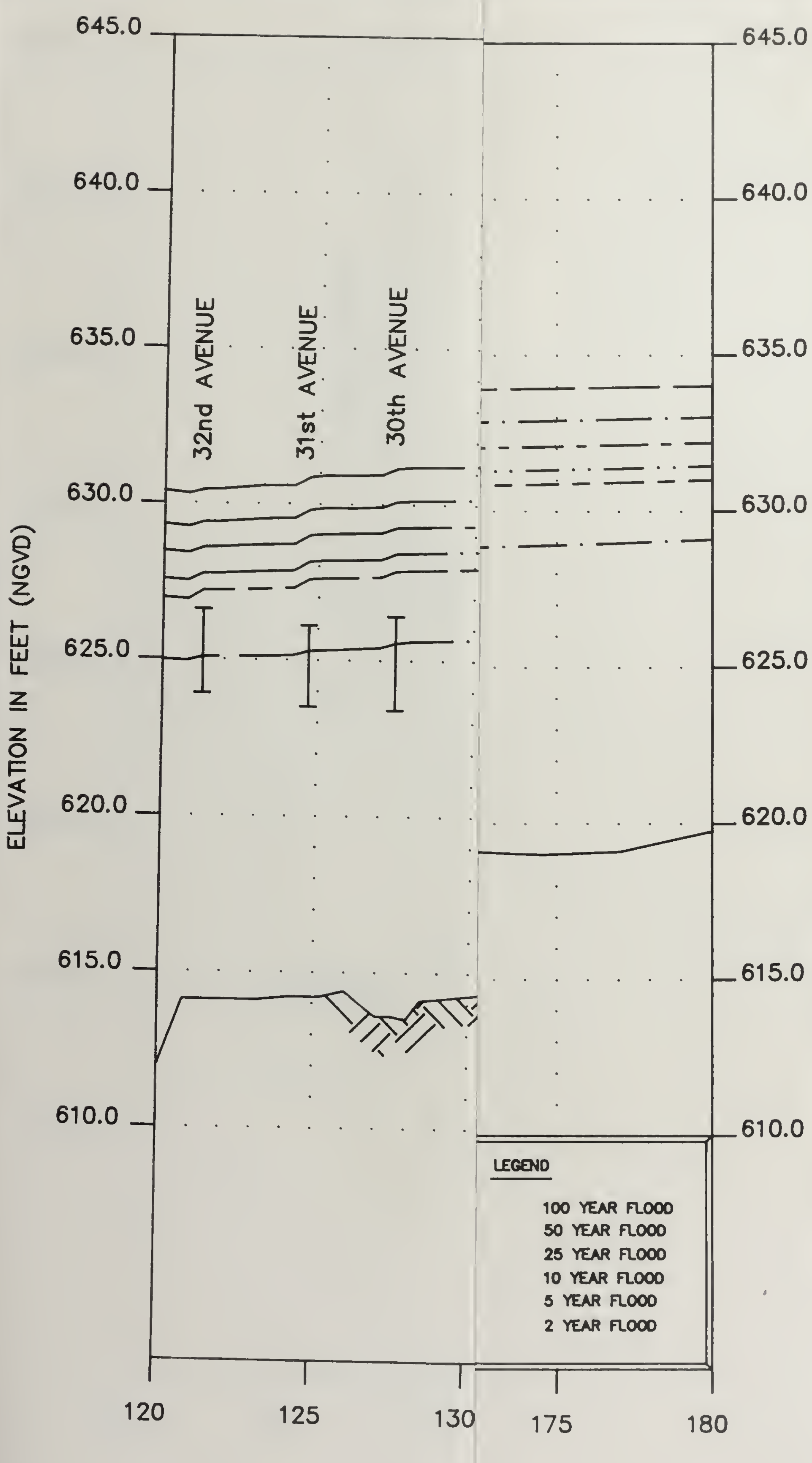
Donohue
Engineers & Architects

SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E-2
PAGE
E-2

FILE NO. IL 185

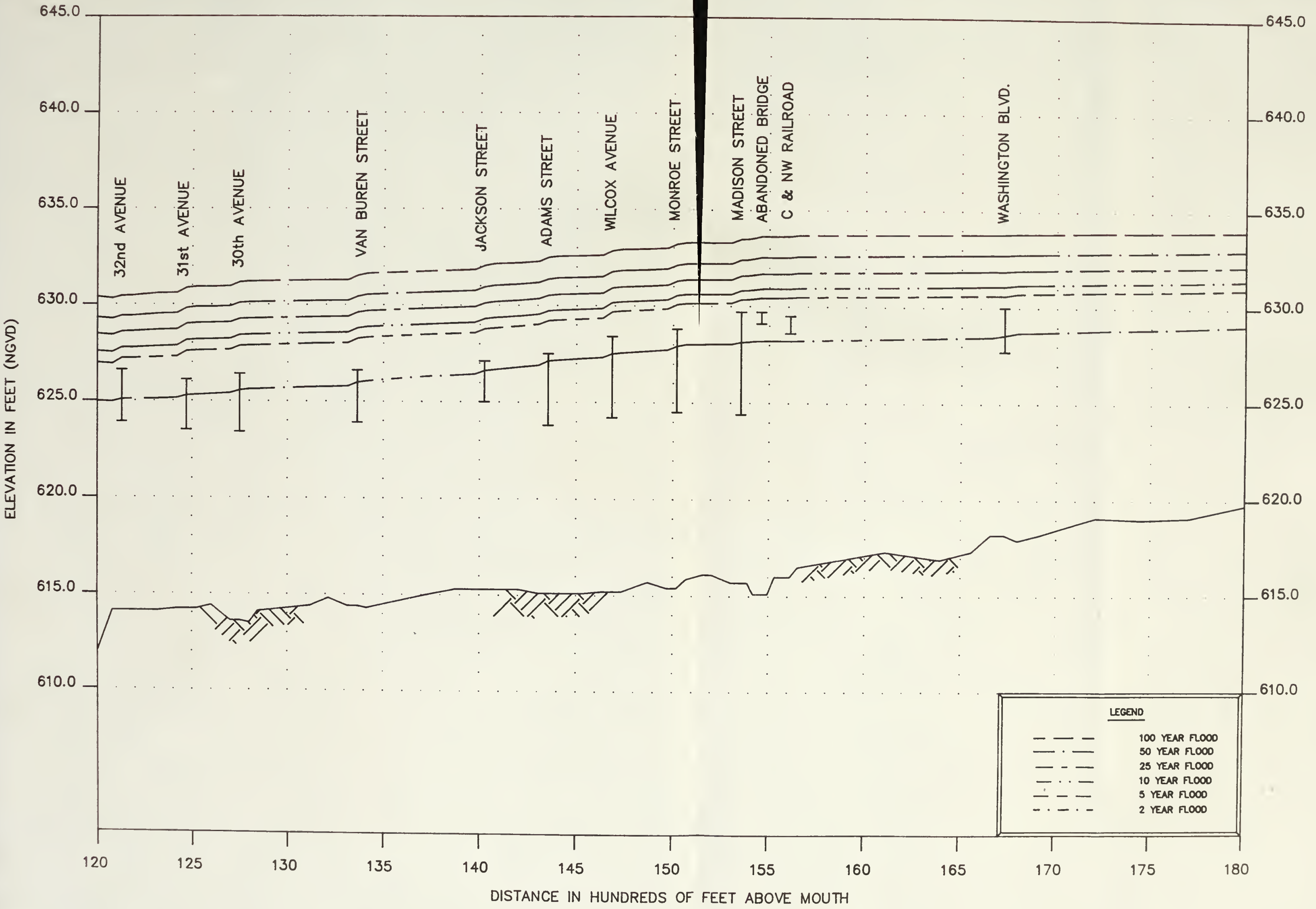


FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

FIGURE
E–3

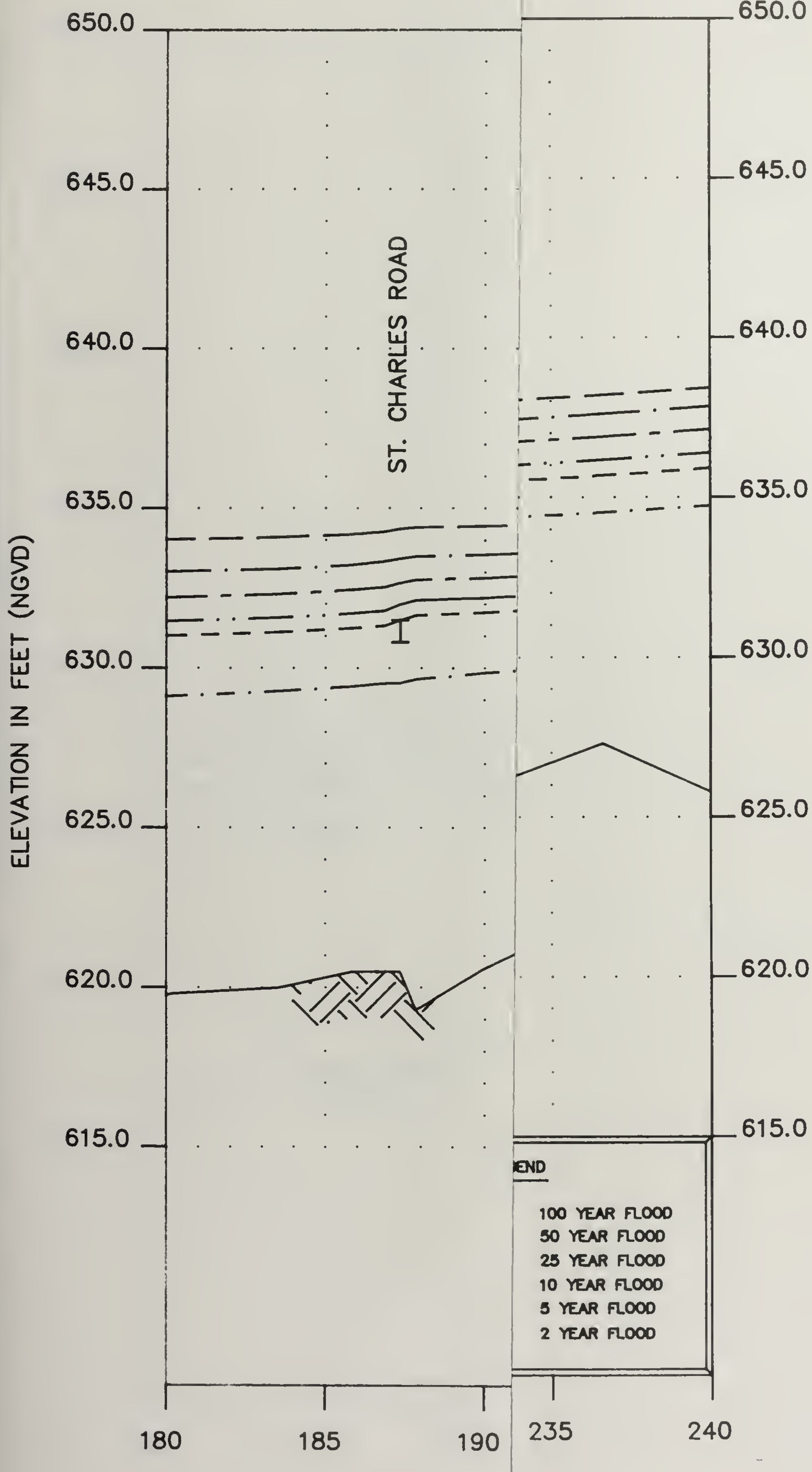
PAGE
E–3



Donohue
Engineers & Architects

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E-3
PAGE
E-3



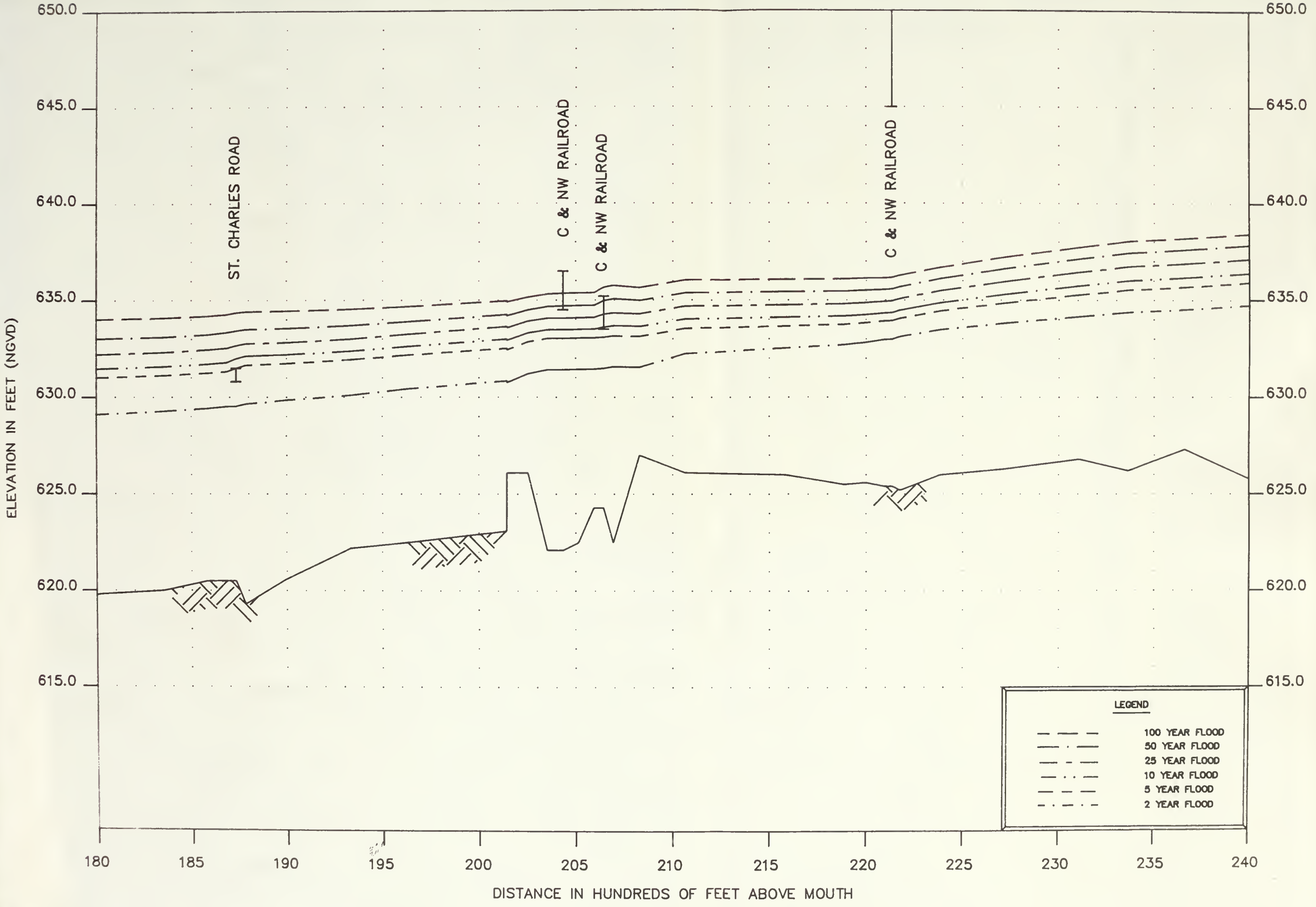
Donohue
Engineers & Architects

SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E−4
PAGE
E−4

FILE NO. IL. 187



FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

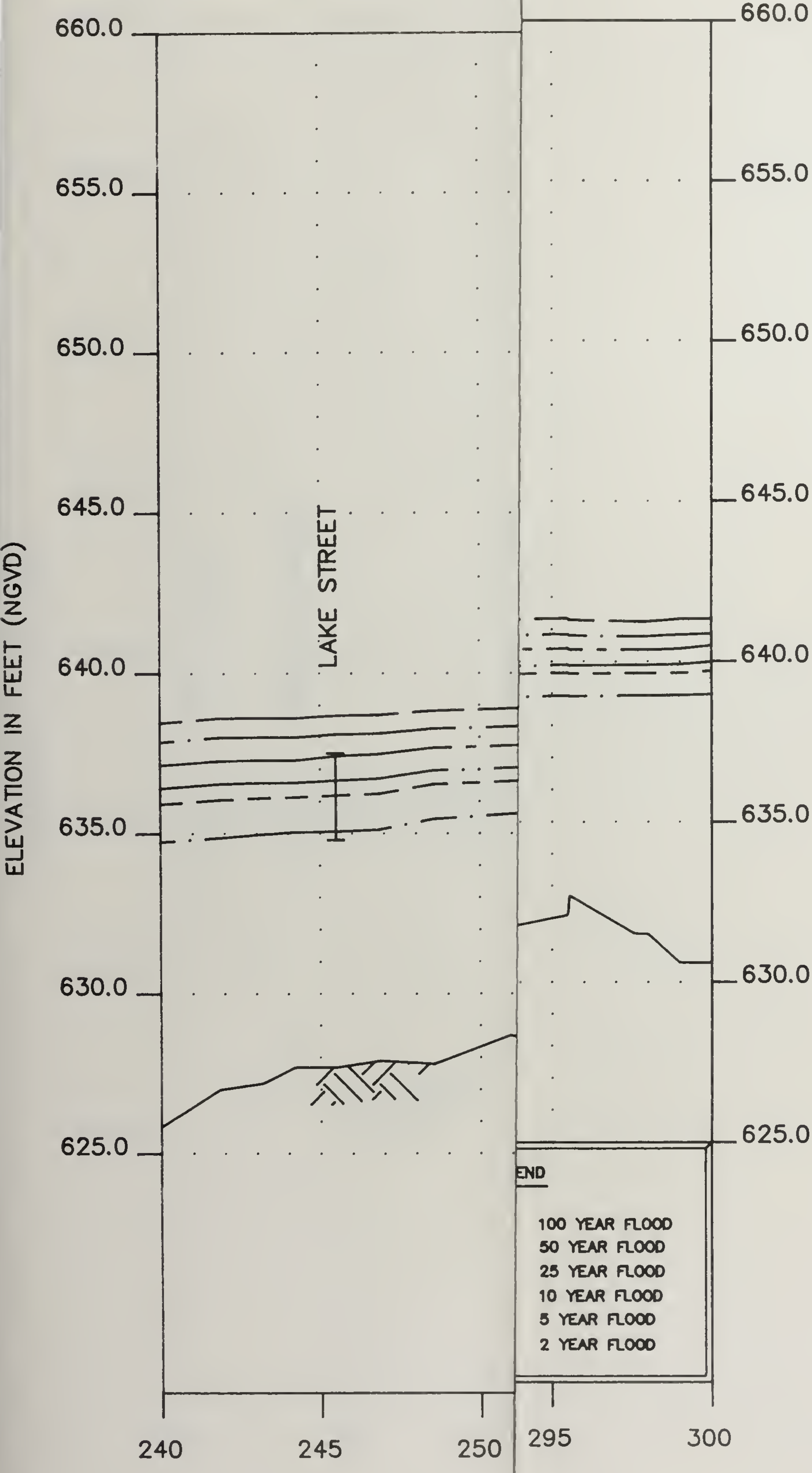
Donohue
Engineers & Architects

SEPTEMBER, 1988

FIGURE
E-4

PAGE
E-4

FILE NO. IL 187



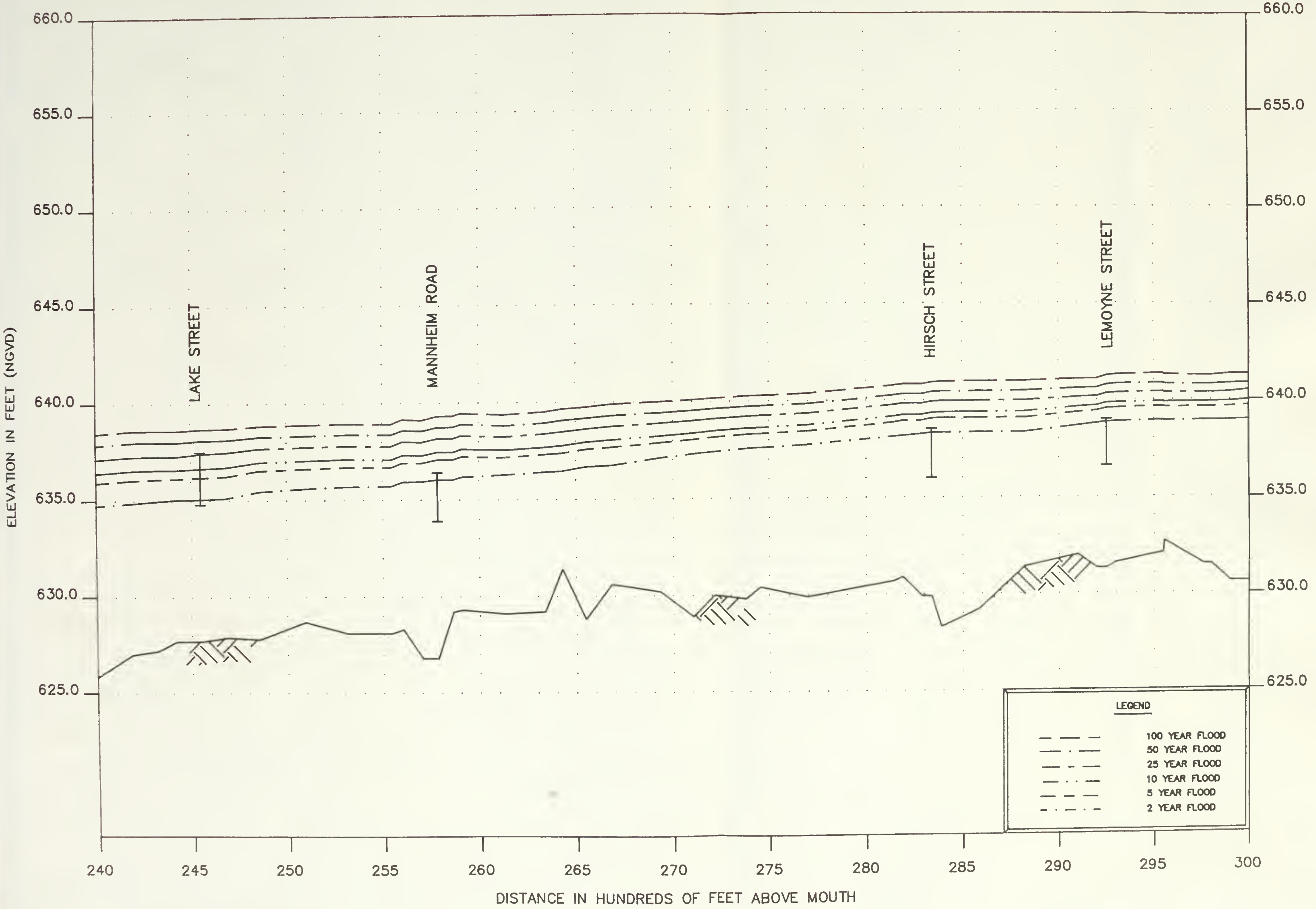
Donohue
Engineers & Architects

SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E–5
PAGE
E–5

FILE NO. IL 188



Donohue
Engineers & Architects

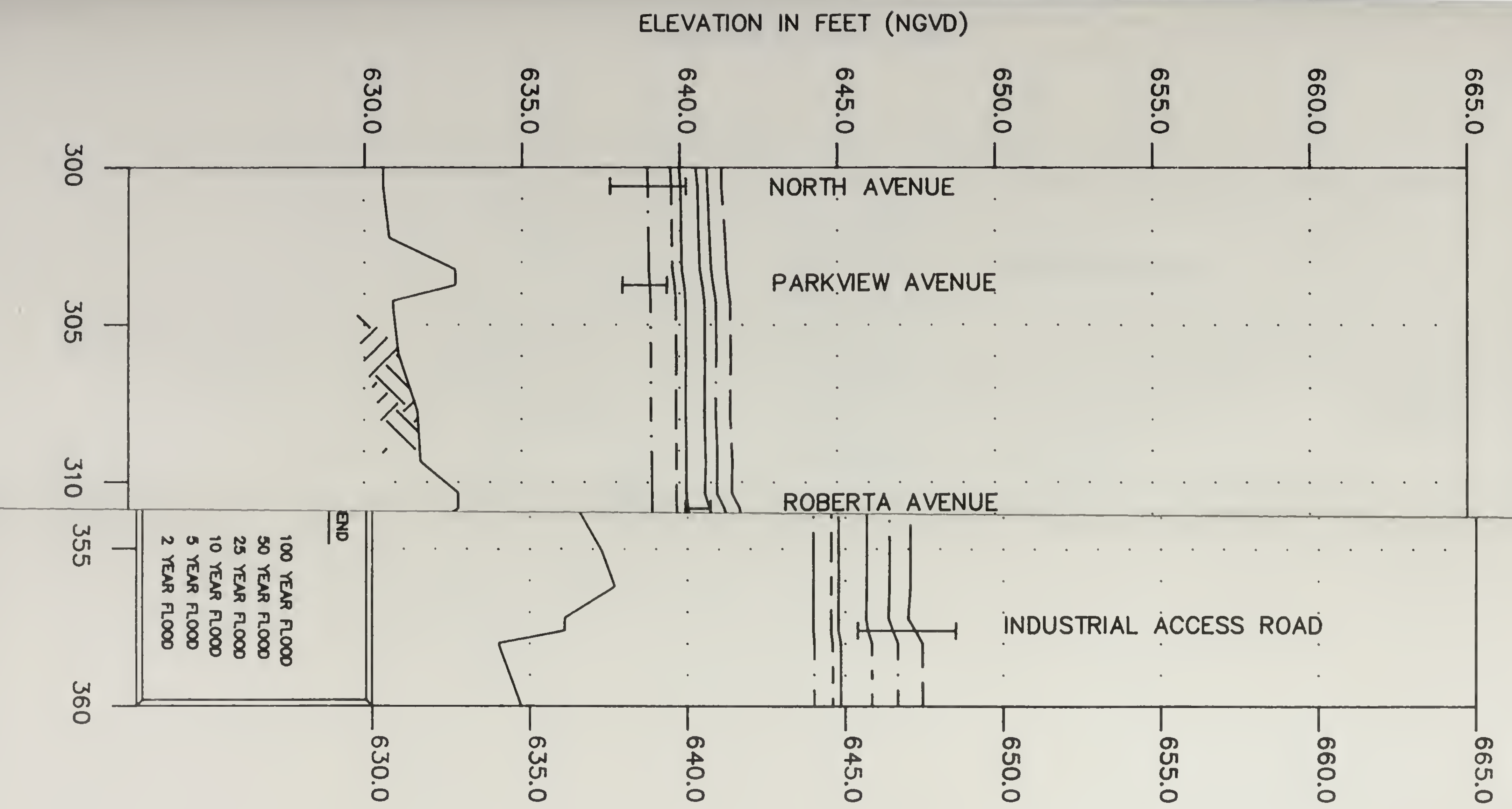
SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E-5

PAGE
E-5

FILE NO. IL 188



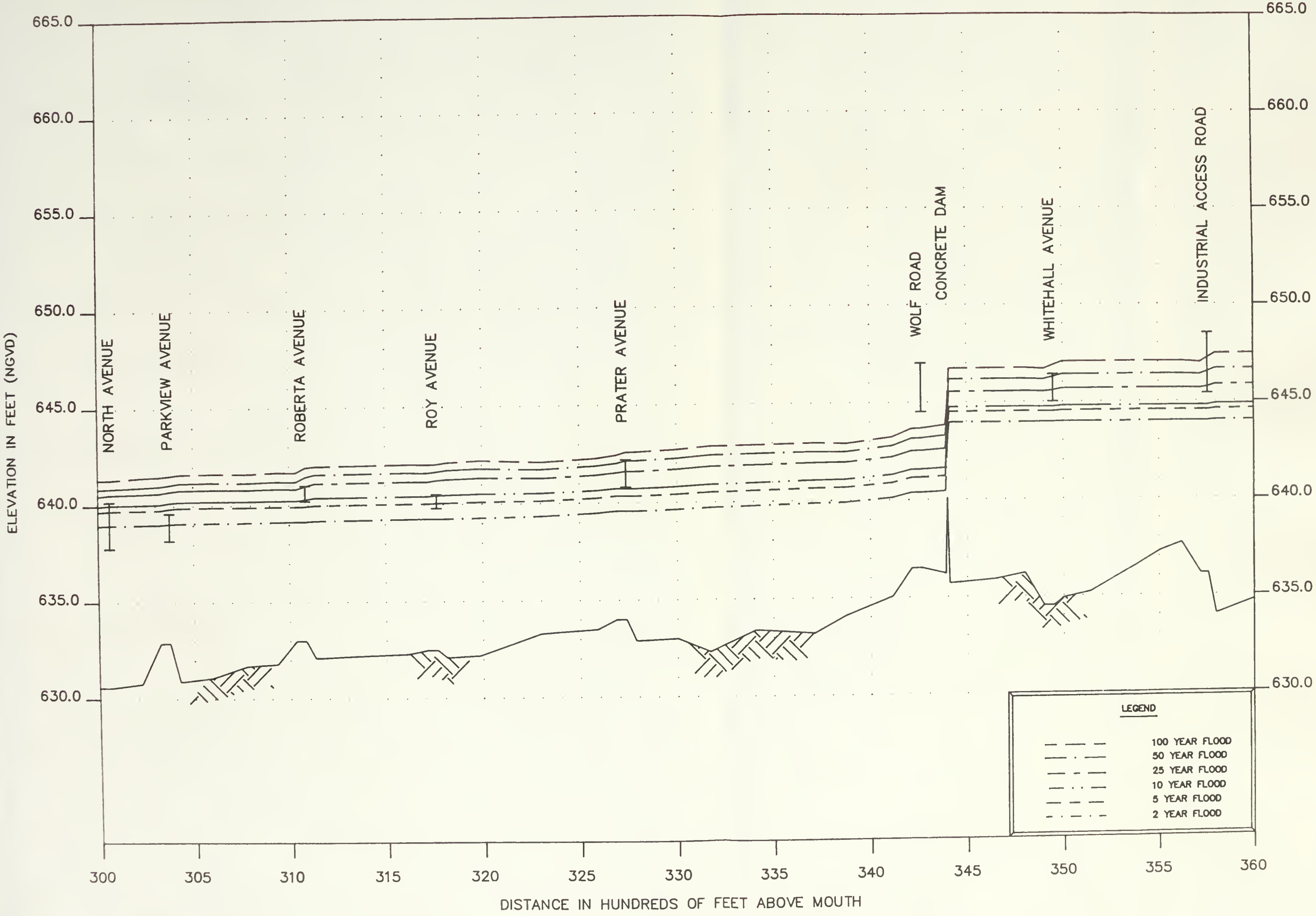
FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

FIGURE
E-6
PAGE
E-6

FILE NO. IL 189

SEPTEMBER, 1988



Donohue
Engineers & Architects

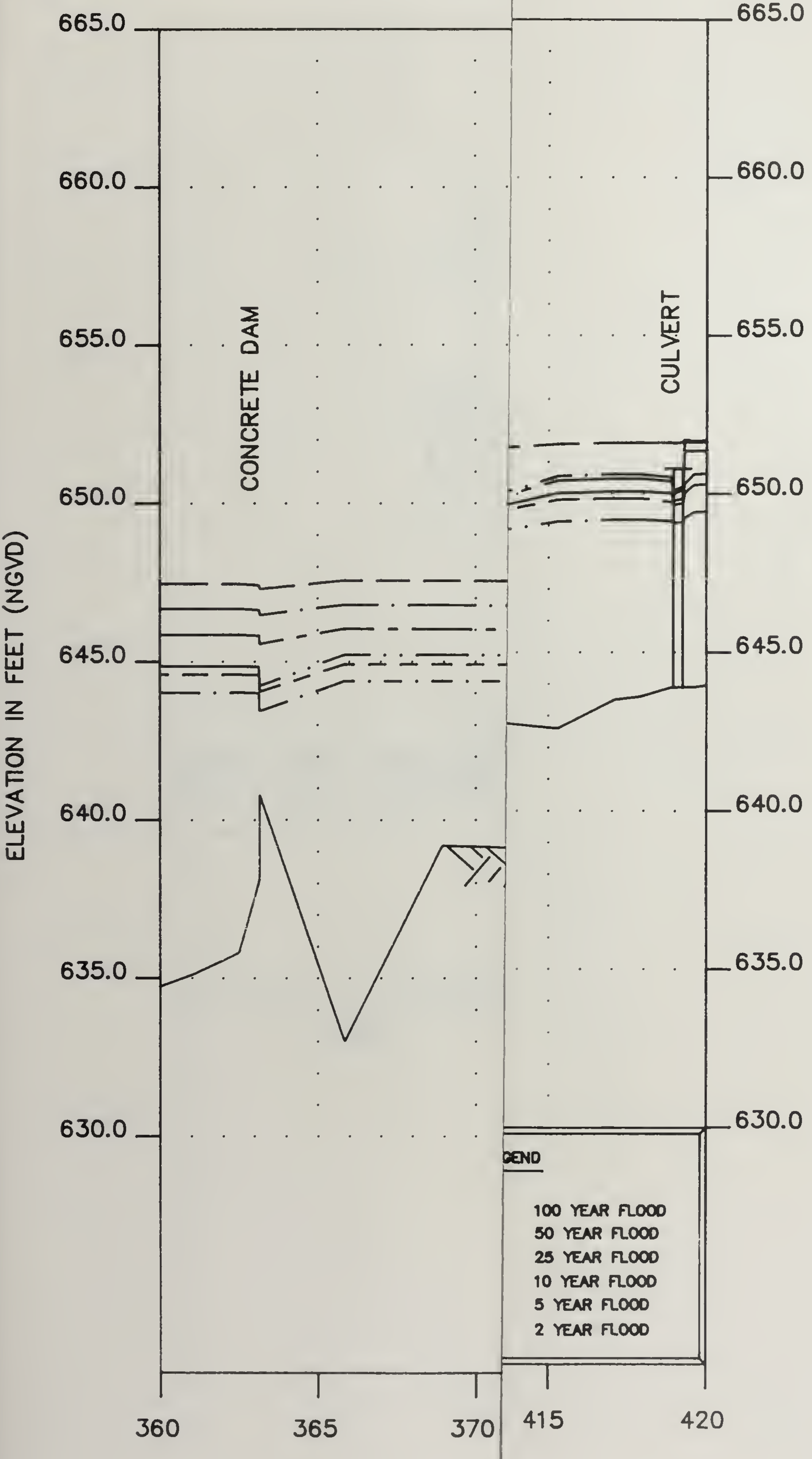
SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E-6

PAGE
E-6

FILE NO. IL 189



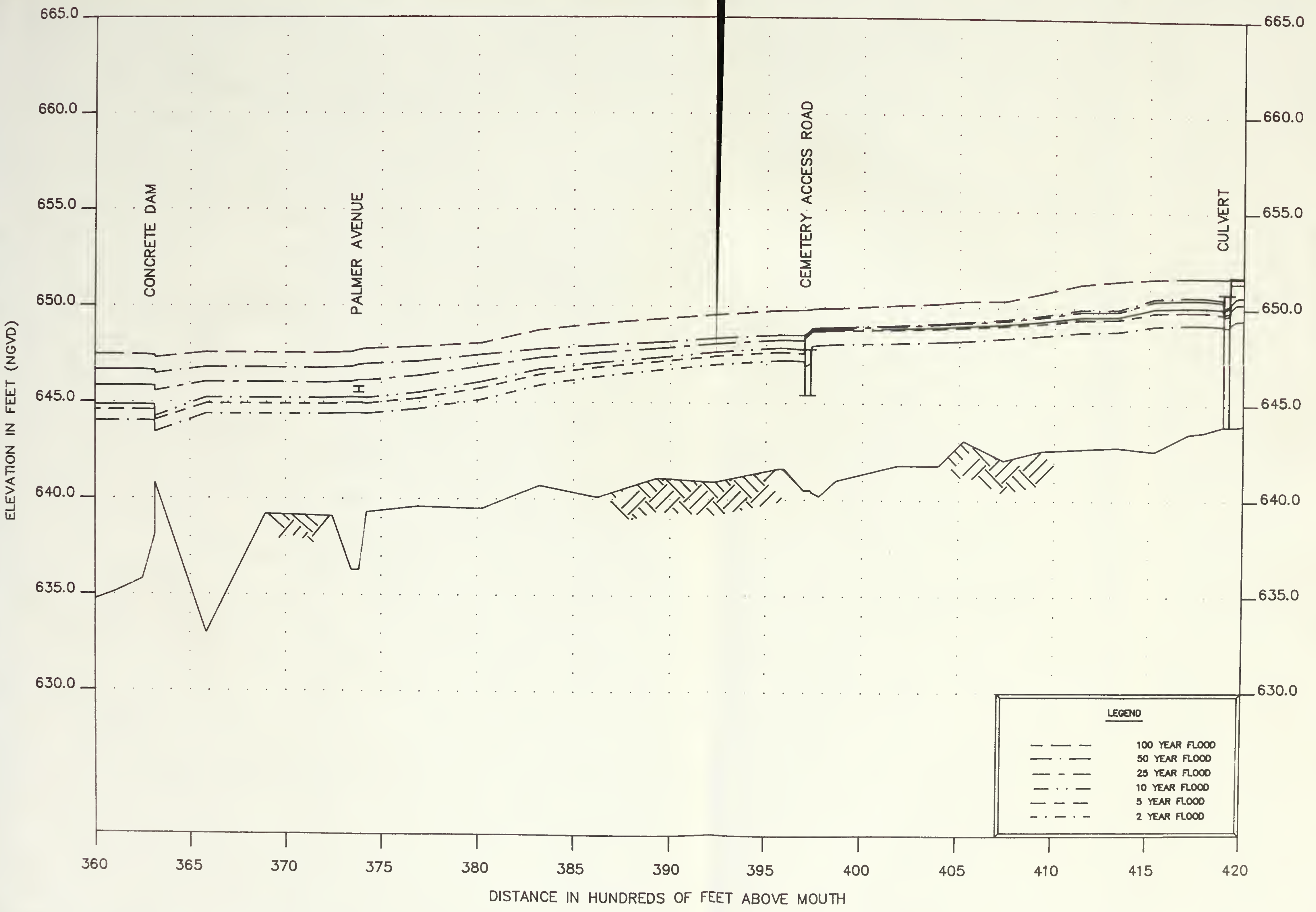
FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

SEPTEMBER, 1988

FIGURE
E-7
PAGE
E-7

FILE NO. IL 190



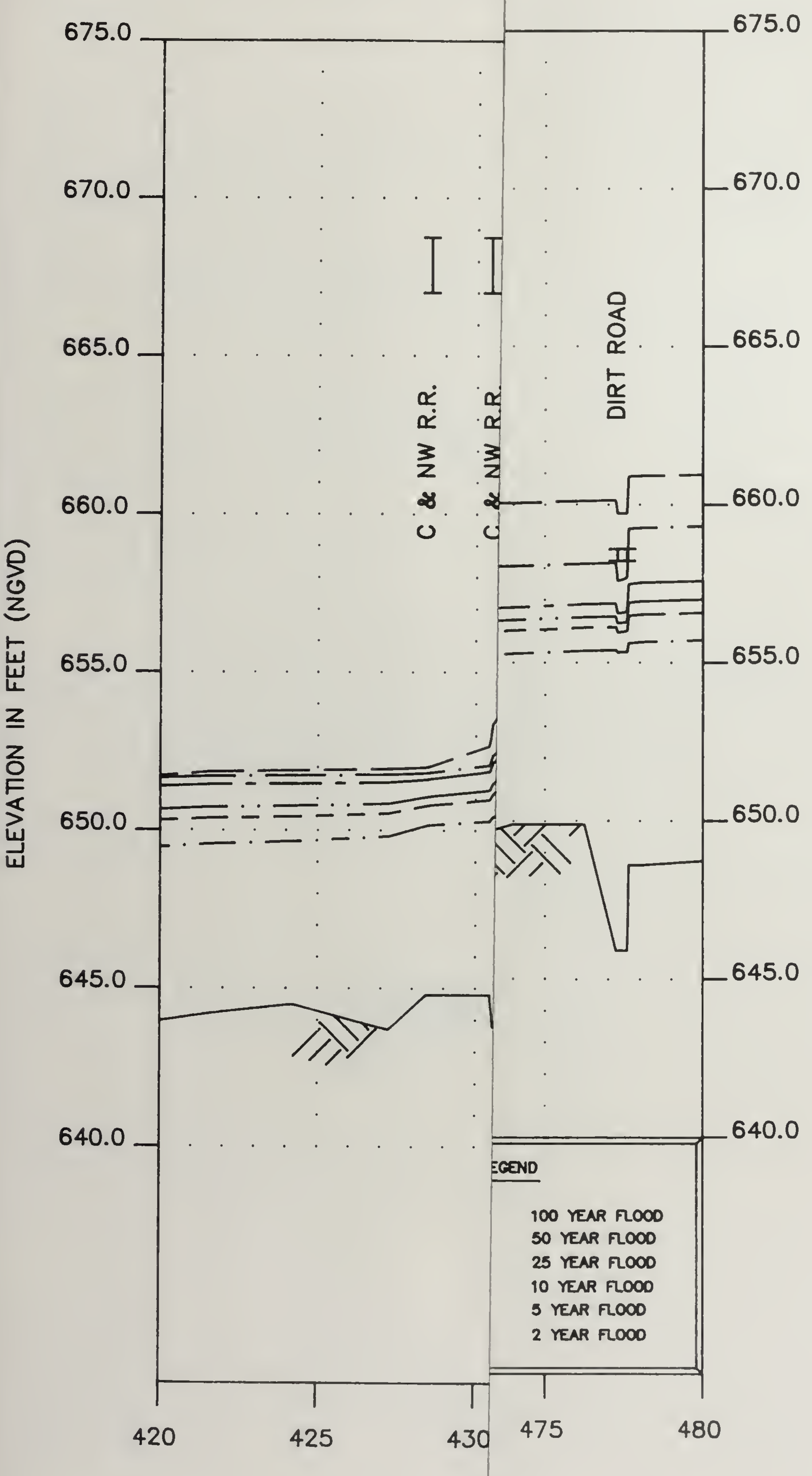
FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

SEPTEMBER, 1988

FIGURE
E-7
PAGE
E-7

FILE NO. IL 190



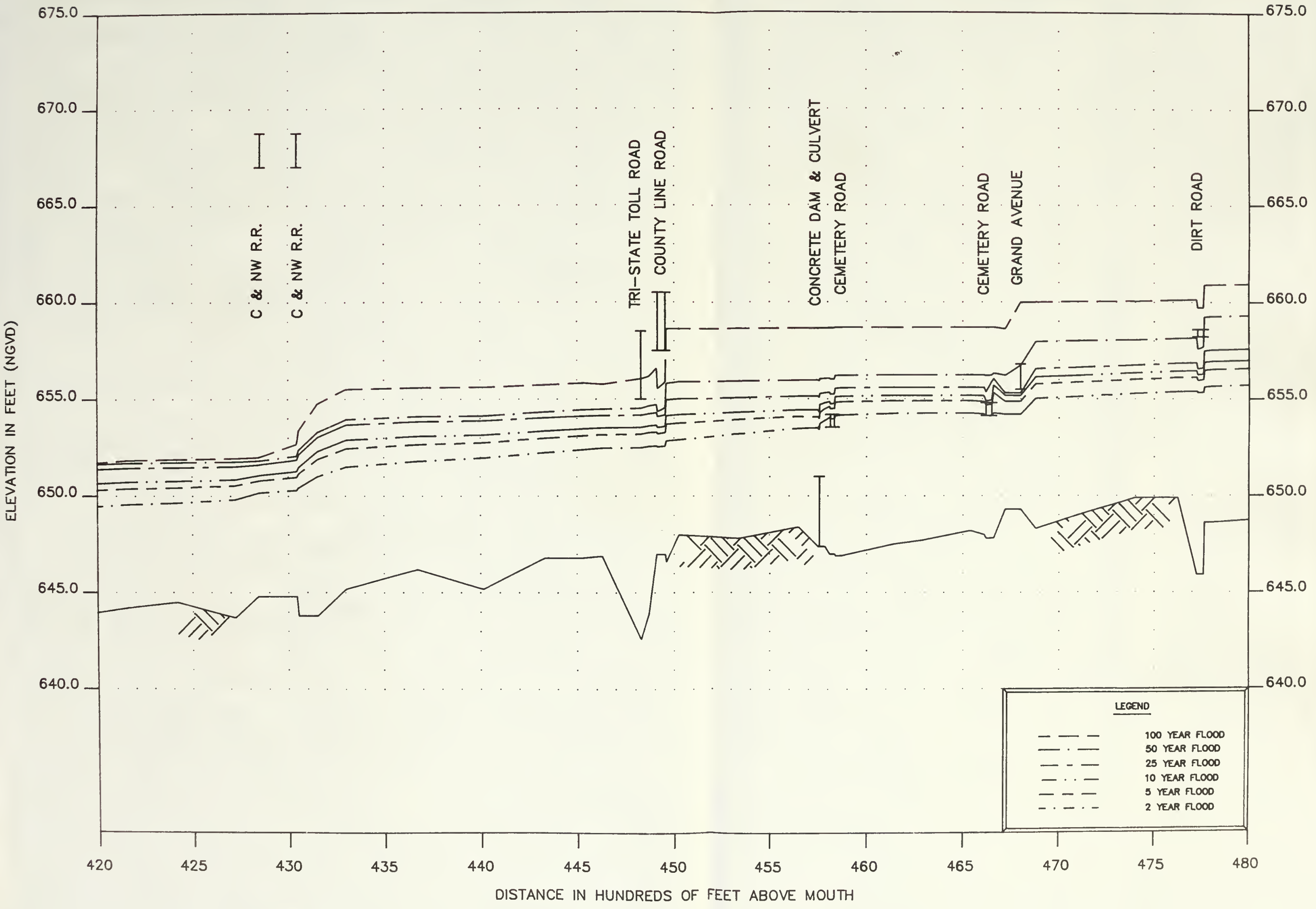
FLOOD PROFILES

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

FIGURE
E-8
PAGE
E-8

FILE NO. IL 191
SEPTEMBER, 1988



FLOOD PROFILES

ADDISON CREEK STORMWATER MANAGEMENT SYSTEM

COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue

Engineers & Architects

SEPTEMBER, 1988

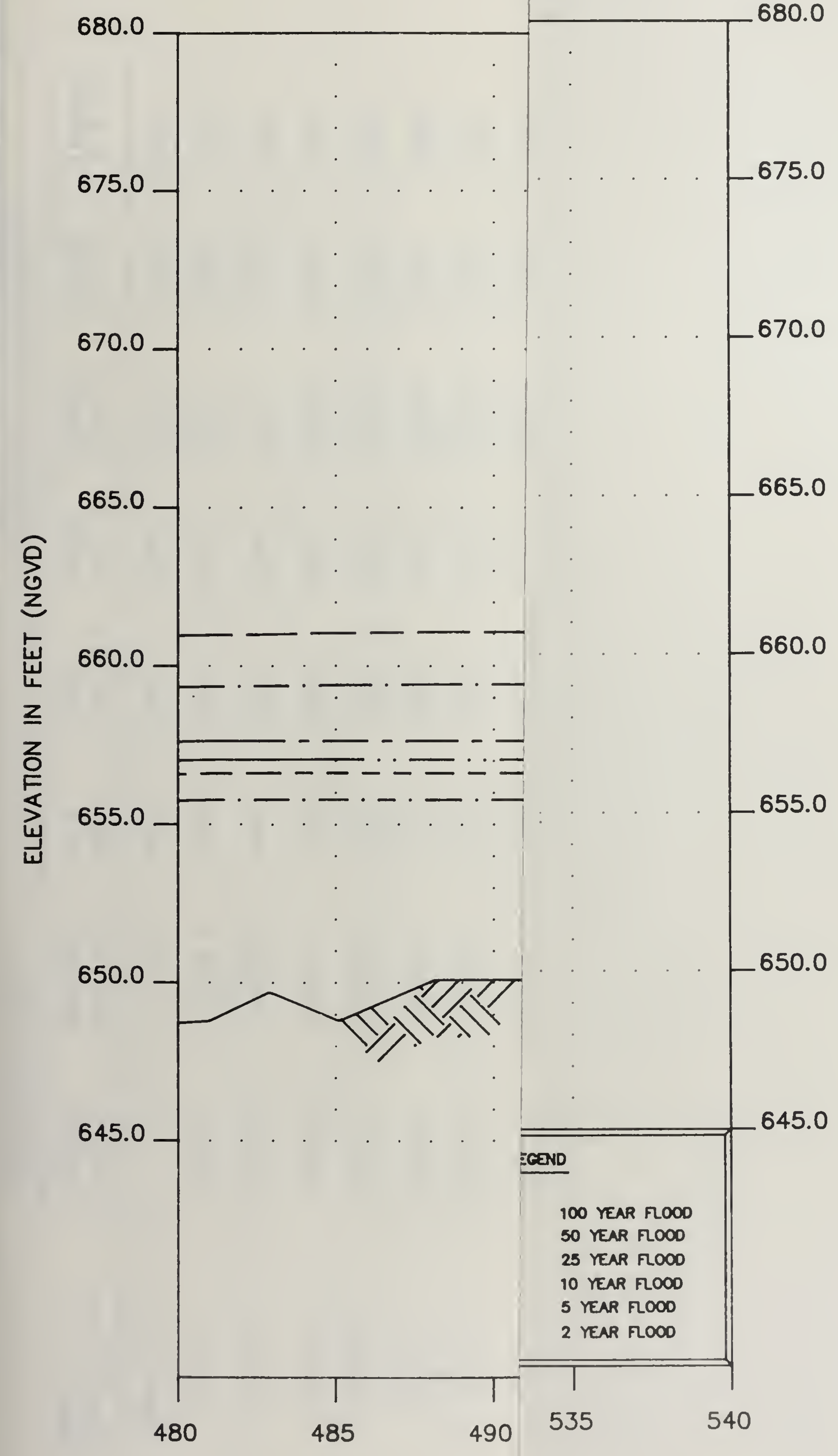
FIGURE

E-8

PAGE

E-8

FILE NO. IL 191



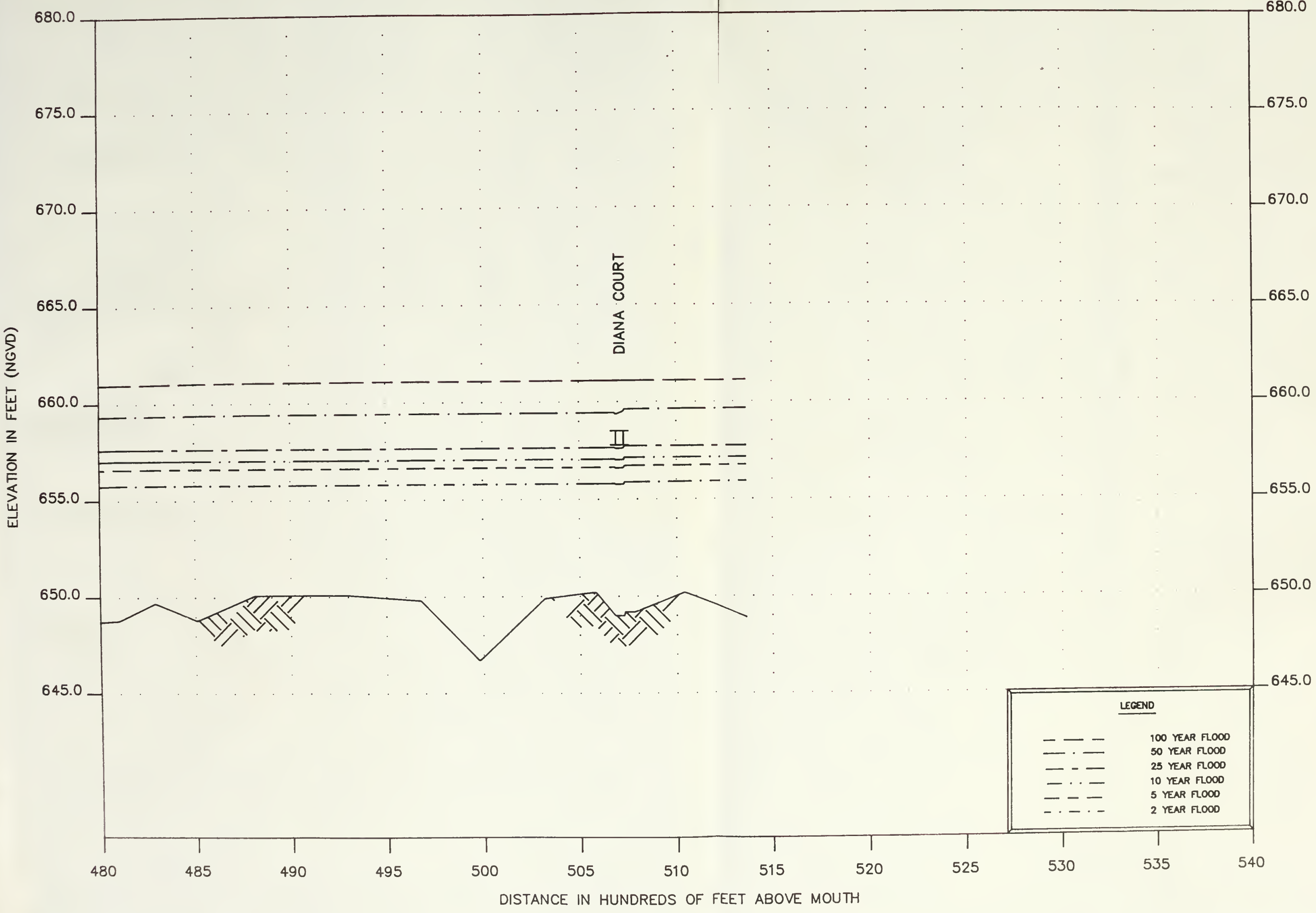
Donohue
Engineers & Architects

SEPTEMBER, 1988

FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

FIGURE
E-9
PAGE
E-9

FILE NO. IL 192



FLOOD PROFILES
ADDISON CREEK STORMWATER MANAGEMENT SYSTEM
COOK AND DuPAGE COUNTIES, ILLINOIS

Donohue
Engineers & Architects

SEPTEMBER, 1988

FIGURE
E-9

PAGE
E-9

FILE NO. IL 192

	Applied To HEC-2		Frequency Discharges**					
HEC-1 Flow Point	*River Station	River Station	2-Yr 615.0	5-Yr 616.0	10-Yr 617.8	25-Yr 617.8	50-Yr 617.8	100-yr 619.4
Mouth	0	3360	980	1381	1508	1810	2137	2587
170	3360	7100	919	1291	1419	1687	1991	2400
180	7100	9415	864	1217	1369	1629	1871	2242
160	9415	15070	776	1088	1198	1385	1600	1881
145	15070	18355	598	825	929	1113	1321	1489
140	18355	20830	574	811	915	1097	1293	1462
131	20830	21580	554	774	872	1048	1257	1421
130	21580	24185	522	773	881	1056	1254	1417
100	24185	25910	378	527	597	746	878	1032
90	25910	29760	345	474	543	692	824	978
80	29760	33000	322	426	492	714	914	1119
70	33000	38025	315	415	480	692	886	1076
60 (After RR60)	38025	41330	290	365	408	493	525	1063
60	41330	44015	381	513	585	711	759	1135
40	44015	48100	322	406	450	527	684	1041
20	48100	51365	87	90	90	90	522	916

* Insert QT card prior to this river station

** Starting water surface elevation at the mouth based on stages in Salt Creek at the confluence with Addison Creek.

```
                                                                                THIS RUN EXECUTED 09-06-88
**************************************************
EC2 RELEASE DATED NOV 76 UPDATED MAY  1984
RROR CORR -  01,02,03,04,05,06
ODIFICATION -  50,51,52,53,54,55,56
BM-PC-XT VERSION AUGUST 1985
**************************************************


    PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
    ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
    ADDALLYR.DAT/OUT  HEC-1 CRITICAL DURATION FLOWS USED

 ICHECK    INQ      NINV      IDIR      STRT     METRIC    HVINS     Q        WSEL      FQ

   0.        2.       0.        0.   .000500      .00       .0       0.   615.000     .000

 NPROF    IPLOT    PRFVS     XSECV     XSECH     FN       ALLDC     IBW       CHNIM     ITRACE

  1.000     .000   -1.000     .000      .000     .000      .000     .000      .000      .000

 VARIABLE CODES FOR SUMMARY PRINTOUT

 150.000    .000     .000     .000      .000     .000      .000     .000      .000      .000

 LPRNT   NUMSEC                 ********REQUESTED SECTION NUMBERS********

 -10.000  -10.000    .000     .000      .000     .000      .000     .000      .000      .000

    6.000   980.000  1381.000   1508.000   1810.000   2137.000   2587.000       .000       .000       .000
     .060      .060      .070       .100       .300       .000       .000       .000       .000       .000
    4.000    10.000   930.000       .060   1005.800       .070   1102.900       .060   1230.700       .000
     .000    25.000  1005.800   1102.900       .000       .000       .000       .000       .000       .000
    1.000   621.250   930.000       .000       .000       .000       .000       .000       .000       .000
  623.300   887.100   622.800    899.000    621.200    928.900    620.000    967.400    620.200   1000.300
  619.700  1002.600   619.100   1005.800    611.600   1024.800    611.700   1032.900    608.900   1039.000
  608.200  1041.100   607.200   1049.800    607.700   1059.100    607.800   1069.900    607.900   1080.900
  608.900  1083.800   611.900   1086.100    612.500   1093.100    615.300   1102.900    614.800   1127.900
  613.000  1150.000   612.600   1170.800    612.800   1193.000    613.500   1212.600    614.000   1230.700

    4.000    10.000   930.000       .060   1005.800       .070   1102.900       .060   1230.700       .000
  200.000      .000      .000       .000    200.000    200.000    200.000       .000       .000       .000

     .060      .060      .070       .000       .000       .000       .000       .000       .000       .000
  440.000    29.000  1006.000   1102.000    225.000    245.000    240.000       .000       .000       .000
  621.200   835.000   621.200    881.000    621.000    904.000    618.800    933.000    617.200    942.000
  616.000   964.000   614.900   1000.000    614.500   1006.000    611.100   1021.000    612.200   1047.000
  609.000  1051.000   607.900   1054.000    607.300   1063.000    607.400   1073.000    607.500   1085.000
  607.700  1090.000   609.000   1092.000    615.500   1102.000    616.500   1124.000    615.400   1149.000
  615.500  1170.000   615.600   1194.000    615.800   1216.000    615.800   1240.000    616.200   1264.000
  616.400  1289.000   616.600   1314.000    617.100   1319.000    616.900   1369.000       .000       .000
```

```
NC      .035      .040      .070      .000      .000      .000      .000      .000      .000      .000
NH     4.000    10.000   850.000      .035   995.200      .070  1067.700      .040  1342.100      .000
X1   755.000    23.000   995.200  1067.700   270.000   360.000   315.000      .000      .000      .000
X4     1.000   621.550   850.000      .000      .000      .000      .000      .000      .000      .000
GR   621.900   824.000   620.700   889.100   620.400   957.900   618.500   995.200   616.800   999.700
GR   612.300  1009.400   611.700  1022.900   608.900  1029.300   607.700  1033.500   607.100  1041.300
GR   606.900  1044.700   608.000  1058.700   608.900  1059.600   616.200  1067.700   613.400  1086.900
GR   614.400  1105.000   614.700  1124.200   614.800  1146.900   615.000  1168.900   615.500  1192.000
GR   616.300  1241.700   616.100  1294.400   619.000  1342.100      .000      .000      .000      .000

NH     3.000    10.000  1020.000      .070  1090.800    10.000  1305.700      .000      .000      .000
X1  1165.000    24.000  1020.000  1090.800   375.000   450.000   410.000      .000      .000      .000
GR   623.200   934.900   620.500   967.900   619.000   986.900   619.100   999.800   619.400  1005.900
GR   619.800  1020.000   609.300  1031.700   608.800  1035.400   608.600  1048.700   608.700  1060.800
GR   608.500  1064.700   609.200  1066.500   612.600  1071.000   613.900  1079.600   617.100  1090.800
GR   617.400  1110.900   614.200  1131.900   613.800  1155.900   614.100  1175.000   614.800  1186.800
GR   614.500  1210.000   615.000  1233.000   616.200  1292.200   618.200  1305.700      .000      .000

NC      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
X1  1400.000      .000      .000      .000   235.000   240.000   235.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000  1186.000      .000      .000      .000      .000

NC      .035      .050      .070      .000      .000      .000      .000      .000      .000      .000
        S-5**CERMAK ROAD**SS 83+70.91
X1  1500.000    29.000  1038.900  1136.600   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000   940.000      .000  1240.000      .000   623.700   623.700      .000
GR   621.700   849.900   621.900   893.800   622.700   939.900   623.500   984.200   624.000   999.900
GR   624.500  1029.800   622.100  1030.600   621.500  1036.500   621.600  1038.900   620.200  1041.000
GR   612.400  1059.900   611.100  1061.700   610.700  1065.100   609.700  1067.000   609.300  1075.800
GR   609.800  1088.000   609.300  1103.000   610.500  1111.800   610.700  1113.000   611.900  1115.900
GR   620.300  1134.600   621.700  1136.600   621.700  1138.800   622.000  1143.600   623.300  1145.900
GR   622.200  1199.700   621.800  1257.000   621.600  1313.900   621.600  1370.500      .000      .000

SB     1.350     1.600     2.600      .000    43.500     2.000   955.000     2.250      .000      .000
X1  1550.000    29.000  1038.900  1136.600    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   622.700   624.600      .000      .000      .000      .000      .000
X3    10.000      .000      .000   940.000      .000  1240.000      .000   624.600   624.600      .000
GR   621.700   849.900   621.900   893.800   622.700   939.900   623.500   984.200   624.000   999.900
GR   624.500  1029.800   622.100  1030.600   621.500  1036.500   621.600  1038.900   620.200  1041.000
GR   612.400  1059.900   611.100  1061.700   610.700  1065.100   609.700  1067.000   609.300  1075.800
GR   609.800  1088.000   609.300  1103.000   610.500  1111.800   610.700  1113.000   611.900  1115.900
GR   620.300  1134.600   621.700  1136.600   621.700  1138.800   622.000  1143.600   623.300  1145.900
GR   622.200  1199.700   621.800  1257.000   621.600  1313.900   621.600  1370.500      .000      .000

NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
NH     4.000      .030   726.000      .070   796.500      .030   870.000    10.000  1081.000      .000
X1  1600.000    17.000   726.000   796.500    50.000    50.000    50.000      .000      .000      .000
X4     1.000   621.200   870.000      .000      .000      .000      .000      .000      .000      .000
GR   621.300   721.300   620.100   726.000   614.500   738.500   613.800   741.500   610.700   744.200
GR   609.700   745.200   608.400   766.000   609.300   782.100   610.600   784.900   619.500   796.500
GR   621.100   860.100   621.400   947.100   621.000   999.900   620.500  1016.200   620.500  1048.900
GR   621.500  1067.900   622.800  1081.000      .000      .000      .000      .000      .000      .000
```

```
     4.000      .030   726.000      .070   796.500      .030   870.000    10.000  1081.000      .000
  1985.000      .000      .000      .000   385.000   385.000   385.000      .000      .000      .000
     1.000   621.200   870.000      .000      .000      .000      .000      .000      .000      .000

  2115.000      .000      .000      .000   125.000   130.000   130.000      .000      .200      .000
      .000      .000      .000      .000      .000   870.000      .000      .000      .000      .000

      .090      .045      .070      .000      .000      .000      .000      .000      .000      .000
   S-10**21ST STREET**SS 71+35.57
  2215.000    25.000   878.400   958.000   100.000   100.000   100.000      .000      .000      .000
    10.000      .000      .000   850.000      .000   995.000      .000   621.500   621.500      .000
   621.700   609.200   621.800   719.500   622.400   771.300   622.900   820.300   623.100   873.100
   623.400   873.200   623.400   878.100   621.000   878.400   619.500   879.100   612.000   898.900
   611.100   900.200   609.600   905.300   609.400   923.300   610.000   939.000   611.100   941.900
   616.700   948.000   618.700   956.800   620.700   958.000   623.200   958.300   623.000   963.200
   622.100   963.300   622.500  1000.300   622.400  1036.500   622.100  1084.300   622.500  1130.400

     1.350     1.600     2.600      .000    36.000     2.500   622.000     1.760      .000      .000
  2265.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
      .000      .000     1.000   621.000   622.000      .000      .000      .000      .000      .000
    10.000      .000      .000   850.000      .000   995.000      .000   622.000   622.000      .000

      .030      .030      .065      .000      .000      .000      .000      .000      .000      .000
  2315.000    11.000   911.100   976.100    50.000    50.000    50.000      .000     -.400      .000
   620.600   895.200   620.300   911.100   610.600   929.300   610.100   931.100   609.900   937.200
   609.400   948.900   610.200   956.900   610.600   960.000   623.200   976.100   623.900  1000.100
   624.400  1007.500      .000      .000      .000      .000      .000      .000      .000      .000

      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
  2590.000      .000      .000      .000   270.000   275.000   275.000      .000      .400      .000

      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
     5.000    10.000   860.000      .030   913.100      .070   970.000      .030  1000.000    10.000
  1288.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
  3065.000    25.000   913.100   970.000   550.000   410.000   475.000      .000      .000      .000
     2.000   621.600   860.000   621.000  1000.000      .000      .000      .000      .000      .000
   623.100   636.200   621.800   731.800   621.200   775.400   621.200   824.400   621.600   861.600
   622.300   913.100   615.200   927.600   614.100   935.400   610.700   938.100   609.800   940.100
   609.500   955.000   610.100   968.000   610.800   970.000   621.600   989.900   620.900  1000.300
   620.300  1002.400   616.300  1009.100   616.200  1014.300   621.800  1022.300   624.000  1030.600
   623.600  1076.400   623.400  1129.300   623.600  1185.500   624.000  1238.100   623.700  1288.600

      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
     6.000   919.000  1291.000  1419.000  1687.000  1991.000  2400.000      .000      .000      .000
  3360.000    18.000   892.200   973.800   295.000   295.000   295.000      .000      .000      .000
   624.100   875.700   622.500   892.200   615.300   906.500   614.000   915.000   611.000   916.700
   609.700   918.600   609.200   928.500   609.900   939.800   610.300   948.500   611.000   949.600
   614.000   951.700   614.700   955.600   623.200   973.800   625.000   999.800   625.600  1008.900
   627.300  1023.500   629.400  1029.900   627.700  1058.100      .000      .000      .000      .000
```

```
NH     4.000      .030   894.100      .070   972.800      .030  1020.000    10.000  1047.900      .000
X1  3660.000    15.000   894.100   972.800   300.000   310.000   300.000      .000      .000      .000
X4     1.000   625.500  1020.000      .000      .000      .000      .000      .000      .000      .000
GR   623.900   846.900   623.600   881.400   622.500   894.100   615.400   910.100   614.800   917.900
GR   611.100   922.900   610.000   925.100   609.800   933.000   609.800   946.700   610.100   953.100
GR   611.200   955.000   625.100   972.800   625.100   978.700   625.200   999.800   626.000  1047.900

NH     4.000      .030   761.900      .070   838.000      .030   930.000    10.000  1275.500      .000
X1  3905.000    16.000   761.900   838.000   220.000   280.000   245.000      .000      .000      .000
X4     1.000   626.200   930.000      .000      .000      .000      .000      .000      .000      .000
GR   623.300   737.800   622.400   761.900   614.700   779.200   614.500   785.100   611.000   788.100
GR   609.700   789.000   609.400   793.100   608.700   809.600   609.500   816.000   611.000   817.100
GR   623.300   838.000   626.000   911.100   626.700  1000.000   626.500  1093.300   626.500  1192.000
GR   625.900  1275.500      .000      .000      .000      .000      .000      .000      .000      .000

NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
X1  4115.000    14.000   866.000   961.000   200.000   230.000   210.000      .000      .000      .000
GR   623.700   833.100   622.400   866.000   615.200   881.900   614.700   886.700   611.000   892.100
GR   610.400   893.100   609.400   916.000   610.100   924.100   611.000   926.100   614.800   926.200
GR   615.200   938.000   625.200   961.000   626.600   999.900   626.800  1025.300      .000      .000

NH     4.000      .030   894.200      .070   984.900      .030  1035.000    10.000  1191.000      .000
X1  4355.000    17.000   894.200   984.900   230.000   250.000   240.000      .000      .000      .000
X4     1.000   626.210  1035.000      .000      .000      .000      .000      .000      .000      .000
GR   624.100   879.300   622.300   894.200   615.200   911.200   614.400   915.900   612.300   919.000
GR   610.700   920.600   609.900   947.800   610.600   953.900   612.300   956.200   615.000   957.900
GR   614.800   968.000   623.400   984.900   625.200  1000.100   626.200  1034.000   626.600  1087.000
GR   627.000  1137.500   627.100  1191.000      .000      .000      .000      .000      .000      .000

NH     4.000      .030   906.000      .070   993.900      .030  1010.000    10.000  1114.300      .000
X1  4590.000    16.000   906.000   993.900   250.000   225.000   235.000      .000      .000      .000
X4     1.000   626.500  1010.000      .000      .000      .000      .000      .000      .000      .000
GR   624.900   889.200   623.800   906.000   616.700   919.200   615.700   924.200   612.800   929.200
GR   611.000   932.900   610.000   959.200   611.100   963.900   612.900   965.200   614.600   968.400
GR   614.700   975.200   626.000   993.900   626.300  1000.300   626.900  1025.000   627.700  1068.100
GR   627.800  1114.300      .000      .000      .000      .000      .000      .000      .000      .000

NH     5.000    10.000   780.000      .030   855.700      .070   941.800      .030  1035.000    10.000
NH  1175.200      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1  4945.000    17.000   855.700   941.800   360.000   325.000   355.000      .000      .000      .000
X4     2.000   625.900   780.000   626.600  1035.000      .000      .000      .000      .000      .000
GR   627.800   713.000   625.700   783.800   623.700   855.700   616.400   872.600   615.300   882.800
GR   612.700   885.700   610.600   890.900   610.300   901.600   612.000   914.500   612.700   920.800
GR   614.800   922.500   615.300   925.500   626.300   941.800   626.100  1000.100   627.200  1066.900
GR   628.000  1119.200   628.200  1175.200      .000      .000      .000      .000      .000      .000

NH     4.000      .030   862.800      .070   971.000      .030  1010.000    10.000  1023.000      .000
X1  5230.000    15.000   862.800   971.000   300.000   285.000   285.000      .000      .000      .000
X4     1.000   628.050  1010.000      .000      .000      .000      .000      .000      .000      .000
GR   628.100   788.100   627.100   825.900   626.200   862.800   615.200   889.300   615.300   894.900
GR   612.700   899.200   611.300   901.900   611.100   915.100   611.000   929.900   612.800   933.900
GR   615.100   938.000   615.800   945.900   627.100   971.000   627.800   999.900   628.400  1023.000
```

```
C      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
1  5465.000      .000      .000      .000   290.000   180.000   235.000      .000      .000      .000
3      .000      .000      .000      .000      .000  1010.000      .000      .000      .000      .000

    S-15**25TH AVENUE**SS 37+10.24
1  5565.000    26.000   874.800   945.800   125.000    75.000   100.000      .000      .000      .000
3    10.000      .000      .000   830.000      .000  1030.000      .000   625.200   625.200      .000
R   623.000   461.600   624.000   598.700   624.500   654.900   624.400   748.700   626.100   825.100
R   624.700   836.000   614.200   870.700   612.700   874.800   611.800   875.000   611.800   881.100
R   611.800   888.000   611.800   897.100   611.800   907.600   611.700   911.000   611.700   919.300
R   611.800   928.000   611.600   938.400   612.700   943.800   613.000   945.800   616.900   949.700
R   626.600   970.900   627.800  1000.000   627.500  1101.900   627.600  1203.000   627.300  1302.000
R   627.300  1408.000      .000      .000      .000      .000      .000      .000      .000      .000

B      .900     1.600     2.600      .000    73.000     4.000   807.000      .000      .000      .000
1  5675.000      .000      .000      .000   135.000    85.000   110.000      .000      .000      .000
2      .000      .000     1.000   624.000   626.500      .000      .000      .000      .000      .000
3    10.000      .000      .000   830.000      .000  1030.000      .000   626.500   626.500      .000

H     5.000    10.000   775.000      .030   805.400      .070   904.500      .030   995.000    10.000
H  1105.200      .000      .000      .000      .000      .000      .000      .000      .000      .000
1  5785.000    18.000   805.400   904.500   110.000   110.000   110.000      .000      .000      .000
4     2.000   625.300   775.000   628.750   995.000      .000      .000      .000      .000      .000
R   623.900   650.100   626.000   738.100   624.700   805.400   614.100   825.400   612.600   826.200
R   611.900   826.300   611.500   833.300   611.200   843.900   611.000   857.000   611.300   861.300
R   612.800   865.500   615.500   869.000   618.000   878.100   628.500   904.500   629.500   958.100
R   628.600  1000.000   628.900  1041.400   629.200  1105.200      .000      .000      .000      .000

C      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
H     5.000    10.000   775.000      .030   805.400      .070   904.500      .030   995.000    10.000
H  1105.200      .000      .000      .000      .000      .000      .000      .000      .000      .000
1  5905.000      .000      .000      .000   110.000   140.000   120.000      .000      .000      .000

H     4.000      .030   881.800      .070   975.700      .030  1020.000    10.000  1217.200      .000
1  6240.000    16.000   881.800   975.700   345.000   325.000   335.000      .000      .000      .000
4     1.000   627.600  1020.000      .000      .000      .000      .000      .000      .000      .000
R   626.900   863.100   625.900   881.800   614.900   904.100   612.800   907.500   611.400   911.000
R   611.400   925.400   611.200   937.000   612.700   942.100   615.200   950.100   626.400   975.700
R   628.200  1000.000   626.700  1054.500   626.100  1065.900   627.000  1092.900   627.400  1173.100
R   629.000  1217.200      .000      .000      .000      .000      .000      .000      .000      .000

H     4.000      .030   935.000      .070   977.100      .030  1000.000    10.000  1140.900      .000
1  6730.000    16.000   935.000   977.100   505.000   475.000   490.000      .000      .000      .000
R   646.300   877.500   643.000   889.600   617.000   935.000   613.200   940.900   612.200   945.000
R   611.600   955.900   612.300   971.100   613.200   973.800   614.800   977.100   626.200   995.800
R   627.000  1000.000   628.800  1021.100   629.200  1083.000   625.800  1111.100   625.800  1119.700
R   626.600  1140.900      .000      .000      .000      .000      .000      .000      .000      .000
```

```
NC      .060       .050       .070       .300       .500       .000       .000       .000       .000       .000
X1  6765.000       .000       .000       .000     35.000     35.000     35.000       .000       .000       .000
X3      .000       .000       .000       .000       .000   1000.000       .000       .000       .000       .000

ET      .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    870.000   1000.000
         S-20**INDIANA HARBOR BELT RAILROAD**SS 24+42.20
X1  6865.000     19.000    928.000    986.100    100.000    100.000    100.000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    624.000    624.000       .000
GR   624.800    727.000    624.400    833.000    624.500    925.600    622.300    928.000    618.800    931.700
GR   614.100    943.300    613.600    945.900    613.400    957.800    613.500    964.000    614.200    970.900
GR   618.700    981.900    622.300    986.100    623.200    989.000    623.700   1000.000    624.400   1036.900
GR   625.200   1154.900    625.800   1296.900    626.700   1429.900    626.900   1545.800       .000       .000

SB      .900      1.600      2.600       .000     30.000       .010    392.000      1.540       .000       .000
ET      .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    870.000   1000.000
X1  6895.000       .000       .000       .000     30.000     30.000     30.000       .000       .000       .000
X2      .000       .000      1.000    622.400    624.400       .000       .000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    624.400    624.400       .000
BT    -8.000    727.000    624.800       .000    925.600    624.500       .000    928.000    625.100       .000
BT      .000    989.000    625.200       .000    989.100    624.600       .000   1087.000    625.300       .000
BT      .000   1283.000    627.000       .000   1362.000    628.000       .000       .000       .000       .000

NC      .060       .050       .070       .000       .000       .000       .000       .000       .000       .000
NH     4.000       .060    948.100       .070   1000.000       .050   1015.000     10.000   1261.400       .000
X1  6925.000     20.000    948.100   1000.000     30.000     30.000     30.000       .000      -.200       .000
X4     1.000    624.200   1015.000       .000       .000       .000       .000       .000       .000       .000
GR   646.500    883.000    644.500    892.000    621.200    930.900    617.400    948.100    614.100    951.100
GR   613.100    951.300    612.600    953.800    611.900    963.800    611.800    971.400    612.500    979.800
GR   614.200    982.000    616.500    983.800    626.300   1000.000    624.400   1007.900    624.300   1028.000
GR   624.800   1102.000    625.000   1171.800    625.900   1244.000    626.700   1249.900    626.500   1261.400

NC      .060       .050       .070       .000       .000       .000       .000       .000       .000       .000
QT     6.000    864.000   1217.000   1369.000   1629.000   1871.000   2242.000       .000       .000       .000
X1  7100.000      9.000    150.000    200.000    175.000    175.000    175.000       .000      -.200       .000
GR   625.620    140.000    624.970    150.000    614.320    162.000    613.200    165.000    612.340    180.000
GR   613.100    195.000    617.330    200.000    623.430    210.000    629.150    220.000       .000       .000

NC      .060       .070       .040       .000       .000       .000       .000       .000       .000       .000
         S-25**GARDNER ROAD**SS 16+28.32
X1  7320.000     11.000    122.000    171.000    220.000    220.000    220.000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    622.300    622.300       .000
GR   630.000    100.000    623.100    110.000    616.480    122.000    614.180    130.000    612.900    131.000
GR   612.700    145.000    612.860    160.000    614.570    161.000    618.910    171.000    623.460    180.000
GR   630.000    190.000       .000       .000       .000       .000       .000       .000       .000       .000

SB     1.050      1.600      2.600     60.000     30.000     20.000    264.000      2.000       .000       .000
X1  7520.000       .000       .000       .000    200.000    200.000    200.000       .000       .000       .000
X2      .000       .000      1.000    622.250    625.500       .000       .000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    625.500    625.500       .000
```

```
    .060      .070      .070      .100      .300      .000      .000      .000      .000      .000
   3.000      .060   155.000      .070   225.000      .070   240.000      .000      .000      .000
7580.000    10.000   155.000   225.000    60.000    60.000    60.000      .000      .000      .000
 624.380   145.000   622.080   155.000   615.800   170.000   613.540   185.000   613.070   200.000
 612.290   215.000   614.710   218.000   621.600   225.000   622.300   230.000   626.260   240.000

    .060      .070      .070      .000      .000      .000      .000      .000      .000      .000
   4.000    10.000  1090.000      .060  1097.900      .070  1166.000      .070  1220.000      .000
7725.000    15.000  1097.900  1166.000   145.000   145.000   145.000      .000      .000      .000
   1.000   623.800  1090.000      .000      .000      .000      .000      .000      .000      .000
 624.400   939.800   623.100   984.000   623.100  1000.000   623.100  1016.000   624.100  1061.200
 623.600  1097.900   613.900  1117.200   613.100  1121.900   612.300  1127.200   612.000  1138.800
 612.700  1144.000   613.900  1149.200   622.400  1166.000   624.400  1179.900   639.600  1220.000

   4.000    10.000  1095.000      .060  1098.100      .070  1177.000      .070  1218.300      .000
8245.000    16.000  1098.100  1177.000   520.000   520.000   520.000      .000      .000      .000
   1.000   623.550  1095.000      .000      .000      .000      .000      .000      .000      .000
 625.000   935.700   624.100   958.000   623.100   984.000   623.800   999.800   623.000  1015.600
 623.800  1057.000   623.400  1098.100   613.900  1114.100   612.700  1117.400   612.800  1120.900
 612.700  1137.200   613.200  1141.100   613.900  1143.300   629.800  1177.000   628.900  1197.000
 639.600  1218.300      .000      .000      .000      .000      .000      .000      .000      .000

   5.000    10.000  1015.000      .060  1100.500      .070  1154.300      .070  1180.000    10.000
1193.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
8640.000    15.000  1100.500  1154.300   395.000   395.000   395.000      .000      .000      .000
   2.000   623.200  1015.000   624.750  1180.000      .000      .000      .000      .000      .000
 623.800   963.800   623.500   981.900   624.200   999.700   623.100  1015.800   623.400  1052.800
 623.700  1100.500   622.400  1103.200   614.700  1116.700   614.100  1123.000   613.900  1128.500
 614.000  1132.900   614.600  1138.600   623.100  1154.300   623.700  1157.900   625.100  1193.000

    .030      .030      .080      .000      .000      .000      .000      .000      .000      .000
   4.000      .030  1037.400      .080  1086.300      .030  1140.000    10.000  1296.300      .000
8850.000    12.000  1037.400  1086.300   130.000   285.000   210.000      .000      .000      .000
   1.000   624.000  1140.000      .000      .000      .000      .000      .000      .000      .000
 623.900  1000.000   622.500  1037.400   614.900  1046.800   614.400  1051.900   613.600  1056.100
 612.700  1064.200   613.700  1072.300   614.900  1075.200   623.300  1086.300   624.200  1155.000
 624.100  1255.000   624.200  1296.300      .000      .000      .000      .000      .000      .000

    .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
8900.000      .000      .000      .000    50.000    50.000    50.000      .000      .100      .000
    .000      .000      .000  1018.000      .000  1105.000      .000      .000      .000      .000

    .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   950.000  1077.000
  S-30**ROOSEVELT ROAD**SS 2+74.70
9000.000    19.000  1019.000  1055.000   100.000   100.000   100.000      .000      .000      .000
  10.000      .000      .000      .000      .000      .000      .000   625.100   625.100      .000
 626.500   581.800   626.500   581.900   626.500   582.000   626.000   999.800   626.000   999.900
 626.000  1000.000   625.900  1018.000   625.100  1019.000   624.100  1019.000   618.600  1019.000
 614.800  1028.000   614.300  1033.000   614.100  1038.000   614.200  1046.000   614.900  1054.800
 624.100  1055.000   625.200  1055.000   625.000  1056.000   625.700  1077.000      .000      .000
```

```
SB       .900      1.600      2.600       .000     36.000       .010    338.400       .000       .000       .000
ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    950.000   1077.000
X1   9100.000       .000       .000       .000    100.000    100.000    100.000       .000       .000       .000
X2       .000       .000      1.000    624.100    626.000       .000       .000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    626.000    626.000       .000
BT     -5.000    581.800    626.500       .000    582.000    626.500       .000   1000.000    626.000       .000
BT       .000   1018.000    625.900       .000   1077.000    625.700       .000       .000       .000       .000

NC       .090       .030       .070       .000       .000       .000       .000       .000       .000       .000
NH      5.000     10.000    680.000       .090    734.800       .070    814.000       .030    835.000     10.000
NH   1055.800       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1   9200.000     17.000    734.800    814.000    100.000    100.000    100.000       .000      -.200       .000
X4      2.000    625.350    680.000    626.000    835.000       .000       .000       .000       .000       .000
GR    625.400    662.900    626.200    700.900    625.500    734.800    617.600    759.800    615.000    763.200
GR    612.300    767.900    612.200    775.800    613.300    783.700    615.100    788.600    618.300    794.900
GR    626.200    814.000    626.100    816.800    626.800    917.500    625.000    984.900    625.500    999.700
GR    624.900   1016.500    626.500   1055.800       .000       .000       .000       .000       .000       .000

NC       .035       .035       .070       .100       .300       .000       .000       .000       .000       .000
NH      5.000     10.000    680.000       .035    734.800       .070    814.000       .035    835.000     10.000
NH   1055.800       .000       .000       .000       .000       .000       .000       .000       .000       .000
QT      6.000    776.000   1088.000   1198.000   1385.000   1600.000   1881.000       .000       .000       .000
X1   9415.000       .000       .000       .000    215.000    215.000    215.000       .000       .200       .000
X4      2.000    625.550    680.000    626.200    835.000       .000       .000       .000       .000       .000

NH      4.000       .035    772.800       .070    858.900       .035    860.000     10.000   1059.900       .000
X1   9930.000     15.000    772.800    858.900    510.000    515.000    515.000       .000       .000       .000
X4      1.000    628.100    860.000       .000       .000       .000       .000       .000       .000       .000
GR    627.700    751.800    627.800    772.800    616.900    799.900    614.700    806.800    614.300    812.400
GR    612.800    820.000    613.200    825.100    614.800    833.100    617.000    834.100    628.100    858.900
GR    628.300    914.000    626.400    985.000    627.300    999.900    626.500   1017.300    628.300   1059.900

NC       .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
NH      4.000       .035    789.700       .070    868.100       .035    880.000     10.000   1057.100       .000
X1  10220.000     14.000    789.700    868.100    300.000    275.000    290.000       .000       .000       .000
X4      1.000    627.750    880.000       .000       .000       .000       .000       .000       .000       .000
GR    626.500    738.300    626.100    789.700    615.200    813.300    613.100    818.500    612.900    827.600
GR    613.200    838.200    615.200    840.200    617.400    842.200    627.600    868.100    628.900    936.100
GR    627.300    985.200    628.100   1000.200    627.400   1017.300    629.300   1057.100       .000       .000

NC       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
X1  10300.000       .000       .000       .000     80.000     80.000     80.000       .000       .200       .000
X3       .000       .000       .000       .000       .000    880.000       .000       .000       .000       .000

ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    750.000    870.000
        S-35**GLADSTONE STREET**SS 143+21.0
X1  10400.000     21.000    810.700    850.300    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    624.200    624.200       .000
GR    624.600    661.200    624.800    771.100    624.800    810.700    624.400    812.100    623.700    813.000
GR    615.900    813.000    615.200    814.900    614.400    821.100    614.500    828.100    614.500    836.000
GR    614.400    844.100    614.800    847.900    615.100    850.200    624.700    850.300    624.800    923.000
GR    623.900    984.000    624.800    999.800    624.000   1016.900    625.000   1110.800    624.700   1206.800
GR    624.200   1332.400       .000       .000       .000       .000       .000       .000       .000       .000
```

```
      .900     1.600     2.600      .000    39.000      .010   336.700      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   750.000   870.000
 10440.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000
      .000      .000     1.000   623.800   624.500      .000      .000      .000      .000      .000
    10.000      .000      .000      .000      .000      .000      .000   624.500   624.500      .000
    -8.000   661.200   624.600      .000   771.100   624.800      .000   810.700   624.800      .000
      .000   850.000   624.700      .000   923.000   624.800      .000   999.800   624.800      .000
      .000  1110.800   625.000      .000  1206.800   624.700      .000      .000      .000      .000

     5.000    10.000   795.000      .035   857.100      .070   938.700      .035   940.000    10.000
  1180.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
 10480.000    21.000   857.100   938.700    40.000    40.000    40.000      .000     -.900      .000
     2.000   624.850   795.000   624.800   940.000      .000      .000      .000      .000      .000
   625.000   641.400   624.700   677.400   626.000   764.400   625.500   818.900   625.100   857.100
   617.500   877.300   617.700   887.100   615.200   892.100   614.100   898.900   614.400   906.100
   614.200   915.100   615.300   919.900   625.700   938.700   624.800   986.000   625.400  1000.300
   624.900  1016.900   627.000  1057.100   625.700  1106.400   625.700  1128.000   625.800  1151.100
   626.700  1180.000      .000      .000      .000      .000      .000      .000      .000      .000

      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
     5.000    10.000   795.000      .035   857.100      .070   938.700      .035   940.000    10.000
  1180.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
 10750.000      .000      .000      .000   270.000   270.000   270.000      .000      .900      .000
     2.000   625.750   795.000   624.800   940.000      .000      .000      .000      .000      .000

     5.000    10.000   820.000      .035   869.300      .070   955.400      .035   980.000    10.000
  1432.000      .000      .000      ,000      .000      .000      .000      .000      .000      .000
 11060.000    20.000   869.300   955.400   310.000   310.000   310.000      .000      .000      .000
     2.000   626.000   820.000   626.300   980.000      .000      .000      .000      .000      .000
   625.900   457.100   625.400   551.400   625.800   661.300   625.700   752.400   626.300   869.300
   617.200   897.200   615.300   900.300   614.800   905.200   614.900   914.300   614.800   922.200
   615.300   930.200   616.600   931.000   626.200   955.400   626.400   986.300   627.100  1000.400
   626.600  1017.200   627.700  1112.000   628.100  1210.000   628.200  1334.000   628.500  1432.000

     5.000    10.000   810.000      .035   836.800      .070   914.600      .035   935.000    10.000
  1153.700      .000      .000      .000      .000      .000      .000      .000      .000      .000
 11350.000    17.000   836.800   914.600   290.000   295.000   290.000      .000      .000      .000
     2.000   626.800   810.000   626.750   935.000      .000      .000      .000      .000      .000
   627.000   757.600   626.800   814.700   626.800   836.800   618.400   857.100   615.300   863.700
   613.900   866.800   613.500   878.800   614.400   885.100   615.300   892.100   617.900   894.800
   626.100   914.600   627.200   951.000   625.700   986.600   626.700   999.700   625.800  1016.500
   627.500  1051.900   625.800  1153.700      .000      .000      .000      .000      .000      .000

      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
 11500.000      .000      .000      .000   150.000   150.000   150.000      .000      .400      .000
      .000      .000      .000   810.000      .000   935.000      .000      .000      .000      .000

      .030      .030      .020      .000      .000      .000      .000      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   750.000   870.000
```

```
         S-40**WEDGEWOOD STREET**SS 131+35.70
X1  11600.000      23.000     774.500     848.400     100.000     100.000     100.000        .000       -.100        .000
X3     10.000        .000        .000        .000        .000        .000        .000     625.800     625.800        .000
GR    626.800     444.800     626.600     544.600     626.900     644.500     624.700     759.700     623.700     774.500
GR    617.000     789.300     616.500     792.300     617.200     795.300     615.700     796.600     615.200     800.400
GR    615.300     805.300     615.500     811.500     615.000     823.500     614.300     830.200     615.200     833.700
GR    615.800     835.800     624.000     848.400     624.600     863.400     627.700     929.400     627.200     999.900
GR    627.200    1093.600     627.600    1199.000     628.100    1297.000        .000        .000        .000        .000

SB      1.000       1.600       2.600        .000      39.500       4.000     590.000       1.900        .000        .000
ET       .000       9.110       9.110       9.110       9.110       9.110       9.110       9.110     750.000     870.000
X1  11650.000        .000        .000        .000      50.000      50.000      50.000        .000        .000        .000
X2       .000        .000       1.000     625.500     626.600        .000        .000        .000        .000        .000
X3     10.000        .000        .000        .000        .000        .000        .000     626.600     627.200        .000
BT    -10.000     444.800     626.800        .000     544.600     626.600        .000     644.500     626.900        .000
BT       .000     747.000     626.800        .000     878.000     627.500        .000     929.400     627.700        .000
BT       .000     999.900     627.200        .000    1093.600     627.200        .000    1199.000     627.600        .000
BT       .000    1297.000     628.100        .000        .000        .000        .000        .000        .000        .000

ET       .000       9.100       9.100       9.100       9.100       9.100       9.100       9.100     750.000     850.000
         S-45**EISENHOWER EXPWY,I-290 (FROM BRIDGE PLANS)
X1  11680.000        .000        .000        .000      30.000      30.000      30.000        .000        .000        .000

ET       .000       9.110       9.110       9.110       9.110       9.110       9.110       9.110     750.000     850.000
X1  11700.000        .000        .000        .000      20.000      20.000      20.000        .000        .000        .000
X3     10.000        .000        .000        .000        .000        .000        .000     626.400     626.400        .000

SB      1.000       1.600       2.600     140.000      45.000       5.200     620.000       1.500        .000        .000
ET       .000       9.110       9.110       9.110       9.110       9.110       9.110       9.110     750.000     870.000
X1  11820.000        .000        .000        .000     120.000     120.000     120.000        .000        .000        .000
X2       .000        .000       1.000     626.500     631.900        .000        .000        .000        .000        .000
X3     10.000        .000        .000        .000        .000        .000        .000     631.900     631.900        .000

NC       .030        .030        .020        .000        .000        .000        .000        .000        .000        .000
NH      5.000      10.000     750.000        .030     774.500        .020     848.400        .030     870.000      10.000
NH   1297.000        .000        .000        .000        .000        .000        .000        .000        .000        .000
X1  11850.000        .000        .000        .000      30.000      30.000      30.000        .000        .000        .000
X4      2.000     624.750     750.000     624.800     870.000        .000        .000        .000        .000        .000

NC       .030        .030        .020        .000        .000        .000        .000        .000        .000        .000
ET       .000       9.110       9.110       9.110       9.110       9.110       9.110       9.110    1110.000    1250.000
         S-50**HARRISON STREET**SS 126+59.30
X1  11875.000      21.000    1145.600    1219.600      25.000      25.000      25.000        .000        .000        .000
X3     10.000        .000        .000        .000        .000        .000        .000     626.100     626.100        .000
GR    627.100     999.900     627.000    1064.900     625.400    1127.500     623.900    1131.600     623.500    1145.600
GR    620.100    1151.700     619.200    1160.900     618.100    1164.000     615.900    1173.600     613.800    1183.700
GR    614.400    1192.700     612.000    1202.600     614.700    1204.700     615.900    1207.300     624.200    1219.600
GR    624.200    1234.600     625.100    1238.900     627.600    1296.500     626.900    1341.600     626.900    1366.700
GR    626.900    1392.700        .000        .000        .000        .000        .000        .000        .000        .000
```

```
      .900      1.600      2.600       .000     10.000      2.000    595.000      2.670       .000       .000
      .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1110.000   1250.000
 11925.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
      .000       .000      1.000    625.500    626.600       .000       .000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    626.600    626.600       .000
    -6.000    999.900    627.100       .000   1064.900    627.000       .000   1296.500    627.600       .000
      .000   1341.600    626.900       .000   1366.700    626.900       .000   1392.700    626.900       .000

     5.000     10.000   1110.000       .030   1145.600       .020   1219.600       .030   1250.000     10.000
  1392.700       .000       .000       .000       .000       .000       .000       .000       .000       .000
 11975.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
     2.000    625.800   1110.000    625.500   1250.000       .000       .000       .000       .000       .000

 12002.000       .000       .000       .000     27.000     27.000     27.000       .000       .000       .000
      .000       .000       .000   1110.000       .000   1250.000       .000       .000       .000       .000

      .060       .060       .020       .000       .000       .000       .000       .000       .000       .000
      .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    990.000   1080.000
   S-55**32ND AVENUE**SS 126+59.30
 12080.000     29.000   1021.900   1051.200     58.000     98.000     78.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    625.300    625.300       .000
   627.500    962.300    626.700    970.200    626.800    982.000    626.600    994.100    627.100   1000.100
   626.900   1002.100    626.900   1007.200    624.300   1014.000    624.100   1019.900    624.200   1020.900
   615.900   1021.900    614.400   1021.900    614.100   1027.200    614.200   1031.900    614.300   1035.100
   614.400   1037.500    614.500   1042.300    614.700   1047.000    614.400   1051.200    615.800   1051.200
   624.300   1052.000    623.700   1058.900    626.900   1074.100    627.300   1169.800    626.700   1279.000
   627.000   1368.000    626.100   1485.700    627.100   1499.500    627.200   1512.900       .000       .000

     1.250      1.600      2.600       .000     30.000      3.000    253.800       .000       .000       .000
      .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    990.000   1080.000
 12130.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
      .000       .000      1.000    623.900    626.600       .000       .000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    626.600    626.600       .000
   -14.000    962.300    627.500       .000    970.200    626.700       .000    982.000    626.800       .000
      .000    994.100    626.600       .000   1000.100    627.100       .000   1002.100    626.900       .000
      .000   1007.200    626.900       .000   1074.100    626.900       .000   1169.800    627.300       .000
      .000   1279.000    626.700       .000   1368.000    627.000       .000   1485.700    626.100       .000
      .000   1499.500    627.100       .000   1512.900    627.200       .000       .000       .000       .000

     5.000     10.000    990.000       .060   1021.900       .020   1051.200       .060   1080.000     10.000
  1512.900       .000       .000       .000       .000       .000       .000       .000       .000       .000
 12180.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
     2.000    626.700    990.000    626.700   1080.000       .000       .000       .000       .000       .000

      .025       .035       .050       .000       .000       .000       .000       .000       .000       .000
 12320.000       .000       .000       .000    140.000    140.000    140.000       .000       .000       .000
      .000       .000       .000    990.000       .000   1080.000       .000       .000       .000       .000
```

```
ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1000.000   1085.000
          S-60**31ST AVENUE**SS 122+48.00
X1   12420.000     28.000   1024.000   1054.100    100.000    100.000    100.000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    624.800    624.800       .000
GR     626.600    965.100    625.900    973.200    626.100    985.300    626.000    996.900    626.300    999.800
GR     625.900   1003.800    624.400   1016.100    624.400   1022.800    624.300   1024.000    615.900   1024.000
GR     614.700   1024.200    614.500   1028.200    614.300   1033.900    614.800   1038.000    614.600   1039.000
GR     614.500   1040.000    614.500   1044.000    614.200   1048.700    614.500   1054.000    615.900   1054.000
GR     624.500   1054.100    623.800   1063.700    628.900   1077.600    626.700   1209.000    626.700   1340.100
GR     626.100   1488.600    626.700   1502.000    626.000   1513.800       .000       .000       .000       .000

SB       1.250      1.600      2.600       .000     30.000      2.000    260.000       .000       .000       .000
ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1000.000   1085.000
X1   12470.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2        .000       .000      1.000    623.500    626.100       .000       .000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    626.100    626.100       .000
BT     -12.000    965.100    626.600       .000    973.200    625.900       .000    985.300    626.100       .000
BT        .000    996.900    626.000       .000    999.800    626.300       .000   1003.800    625.900       .000
BT        .000   1077.600    628.900       .000   1209.000    626.700       .000   1340.100    626.700       .000
BT        .000   1488.600    626.100       .000   1502.000    626.700       .000   1513.800    626.000       .000

NH       5.000     10.000   1000.000       .025   1024.000       .050   1054.100       .035   1085.000     10.000
NH    1513.800       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1   12520.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X4       2.000    626.300   1000.000    628.800   1085.000       .000       .000       .000       .000       .000

X1   12600.000       .000       .000       .000     80.000     80.000     80.000       .000       .200       .000
X3        .000       .000       .000   1000.000       .000   1085.000       .000       .000       .000       .000

NC        .025       .035       .050       .000       .000       .000       .000       .000       .000       .000
ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1000.000   1090.000
          S-65**30TH AVENUE**SS 127+80.79
X1   12700.000     16.000   1028.900   1056.900    100.000     10.000    100.000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    624.900    624.900       .000
GR     627.200    967.700    626.600    975.900    626.800    987.200    627.200   1000.100    627.000   1014.000
GR     624.400   1020.900    613.900   1028.900    614.200   1031.800    613.700   1042.100    613.600   1043.000
GR     614.600   1047.900    615.400   1053.100    616.600   1056.900    626.400   1064.400    626.800   1155.000
GR     626.400   1251.100       .000       .000       .000       .000       .000       .000       .000       .000

SB       1.250      1.600      2.600       .000     30.000      2.000    249.000       .000    614.500    614.500
ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1000.000   1090.000
X1   12750.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2        .000       .000      1.000    623.400    626.400       .000       .000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    626.400    626.400       .000
BT      -8.000    967.700    627.200       .000    975.900    626.600       .000    987.200    626.800       .000
BT        .000   1000.100    627.200       .000   1014.000    627.000       .000   1064.400    626.400       .000
BT        .000   1155.000    626.800       .000   1251.100    626.400       .000       .000       .000       .000
```

```
    5.000    10.000  1000.000       .025   1028.900       .050   1056.900       .035   1090.000     10.000
 1251.100      .000      .000       .000       .000       .000       .000       .000       .000       .000
12800.000      .000      .000       .000     50.000     50.000     50.000       .000      -.100       .000
    2.000   627.100  1000.000    626.400   1090.000       .000       .000       .000       .000       .000

     .000      .000      .000       .100       .300       .000       .000       .000       .000       .000
    5.000    10.000   985.000       .025   1004.100       .050   1070.000       .035   1100.000     10.000
 1102.900      .000      .000       .000       .000       .000       .000       .000       .000       .000
12845.000    18.000  1004.100   1070.000     45.000     45.000     45.000       .000       .000       .000
    2.000   627.200   985.000    627.600   1100.000       .000       .000       .000       .000       .000
  625.400   887.100   626.500    905.200    627.700    919.000    627.400    926.600    627.200    945.700
  627.200   964.900   627.300    977.000    627.200    989.100    627.900   1000.000    627.600   1004.100
  622.500  1017.900   616.100   1027.100    614.100   1034.000    614.100   1039.200    614.200   1044.000
  616.000  1046.100   626.500   1070.000    627.600   1102.900       .000       .000       .000       .000

    5.000    10.000  1085.000       .025   1098.900       .050   1176.100       .035   1185.000     10.000
 1299.300      .000      .000       .000       .000       .000       .000       .000       .000       .000
13120.000    18.000  1098.900   1176.100    310.000    215.000    275.000       .000       .000       .000
    2.000   628.300  1085.000    627.000   1185.000       .000       .000       .000       .000       .000
  630.200   820.400   630.000    869.200    628.700    945.300    628.200    963.600    627.700    981.400
  628.200  1000.200   628.400   1052.500    628.300   1098.900    618.400   1115.600    615.600   1119.800
  615.200  1123.800   614.900   1131.600    614.400   1138.600    615.600   1146.200    618.500   1150.000
  626.700  1176.100   627.600   1211.300    626.100   1299.300       .000       .000       .000       .000

     .000      .000      .000       .300       .500       .000       .000       .000       .000       .000
13215.000      .000      .000       .000     95.000     95.000     95.000       .000       .400       .000
     .000      .000      .000   1085.000       .000   1185.000       .000       .000       .000       .000

     .035      .035      .070       .000       .000       .000       .000       .000       .000       .000
     .000     9.110     9.110      9.110      9.110      9.110      9.110      9.110   1095.000   1170.000
   S-70**VAN BUREN STREET**SS 111+73.18
13315.000    31.000  1122.800   1150.200    100.000    100.000    100.000       .000       .000       .000
   10.000      .000      .000       .000       .000       .000       .000    625.100    625.100       .000
  628.100   629.800   628.100    745.400    627.800    807.000    629.000    888.700    626.700    945.800
  626.900   961.800   626.400    982.000    627.000   1000.100    627.200   1075.800    627.000   1104.800
  625.400  1114.800   621.500   1122.800    615.700   1125.100    614.600   1125.600    614.400   1129.000
  614.600  1132.000   615.200   1135.000    615.200   1138.100    615.000   1140.900    614.700   1145.600
  615.000  1149.900   615.700   1150.000    624.000   1150.200    624.000   1151.600    623.200   1152.000
  625.800  1158.000   626.600   1162.800    626.600   1225.900    625.900   1298.000    626.800   1393.000
  627.300  1493.000      .000       .000       .000       .000       .000       .000       .000       .000

    1.250     1.600     2.600       .000     27.000      2.000    222.500       .000       .000       .000
     .000     9.110     9.110      9.110      9.110      9.110      9.110      9.110   1095.000   1170.000
13365.000      .000      .000       .000     50.000     50.000     50.000       .000       .000       .000
     .000      .000     1.000    623.900    625.900       .000       .000       .000       .000       .000
   10.000      .000      .000       .000       .000       .000       .000    626.600    625.900       .000
  -15.000   629.800   628.100       .000    745.400    628.100       .000    807.000    627.800       .000
     .000   888.700   629.000       .000    945.800    626.700       .000    961.800    626.900       .000
     .000   982.000   626.400       .000   1000.100    627.000       .000   1075.800    627.200       .000
     .000  1104.800   627.000       .000   1162.800    626.600       .000   1225.900    626.600       .000
     .000  1298.000   625.900       .000   1393.000    626.800       .000   1493.000    627.300       .000
```

```
NH     5.000    10.000  1095.000      .035  1122.800      .070  1150.200      .035  1170.000    10.000
NH  1493.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 13415.000      .000      .000      .000    50.000    50.000    50.000      .000     -.100      .000
X4     2.000   627.100  1095.000   626.650  1170.000      .000      .000      .000      .000      .000

NH     5.000    10.000  1095.000      .035  1105.600      .070  1162.400      .035  1170.000    10.000
NH  1207.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 13725.000    17.000  1105.600  1162.400   310.000   310.000   310.000      .000      .000      .000
X4     2.000   626.800  1095.000   627.300  1170.000      .000      .000      .000      .000      .000
GR   628.800   916.300   627.000   945.400   627.100   962.200   626.600   980.200   627.400  1000.100
GR   628.300  1029.300   628.400  1072.100   626.000  1105.600   615.800  1119.400   615.000  1123.400
GR   615.100  1129.200   615.600  1137.200   615.700  1144.400   618.500  1149.300   627.000  1162.400
GR   627.400  1188.400   628.000  1207.600      .000      .000      .000      .000      .000      .000

X1 13875.000      .000      .000      .000   150.000   150.000   150.000      .000      .300      .000
X3      .000      .000      .000  1095.000      .000  1170.000      .000      .000      .000      .000

NC      .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1105.000  1185.000
      S-75**JACKSON STREET**SS 105+31.70
X1 13975.000    21.000  1129.600  1158.200   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   626.000   626.000      .000
GR   626.900  1000.200   627.700  1073.100   627.300  1127.100   624.300  1128.400   624.300  1129.600
GR   616.100  1130.500   615.700  1130.500   615.300  1133.200   615.600  1138.500   615.700  1142.300
GR   615.600  1146.300   615.600  1149.400   615.400  1154.300   615.700  1157.500   616.200  1157.600
GR   624.300  1158.200   628.000  1170.400   628.400  1266.300   629.600  1372.000   629.300  1474.000
GR   628.700  1637.100      .000      .000      .000      .000      .000      .000      .000      .000

S8     1.250     1.600     2.600      .000    27.000     2.000   232.000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1105.000  1185.000
X1 14025.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   625.000   627.100      .000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   627.100   627.100      .000
BT    -8.000  1000.200   626.900      .000  1073.100   627.700      .000  1168.000   627.100      .000
BT      .000  1170.400   628.000      .000  1266.300   628.400      .000  1372.000   629.600      .000
BT      .000  1474.000   629.300      .000  1637.100   628.700      .000      .000      .000      .000

NH     5.000    10.000  1105.000      .035  1129.600      .070  1158.200      .035  1185.000    10.000
NH  1637.100      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 14075.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X4     2.000   627.400  1105.000   627.800  1185.000      .000      .000      .000      .000      .000

X1 14205.000      .000      .000      .000   130.000   130.000   130.000      .000      .000      .000
X3      .000      .000      .000  1105.000      .000  1185.000      .000      .000      .000      .000

NC      .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1085.000  1180.000
      S-80**ADAMS STREET**SS 101+69.30
X1 14305.000    20.000  1127.900  1158.100   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   625.600   625.600      .000
GR   627.800   923.000   627.200   969.900   627.500   999.800   627.800  1054.000   626.100  1126.700
GR   623.800  1126.700   623.700  1127.800   623.400  1127.900   615.900  1128.000   615.700  1131.900
GR   615.100  1137.200   615.600  1141.800   615.400  1144.800   615.100  1147.900   615.400  1152.900
```

```
   615.900  1158.000   624.000  1158.100   628.100  1170.900   628.100  1288.800   628.500  1397.600

     1.250     1.600     2.600      .000    30.000     3.250   222.000      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1085.000  1180.000
 14355.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
      .000      .000     1.000   623.800   627.500      .000      .000      .000      .000      .000
    10.000      .000      .000      .000      .000      .000      .000   627.500   627.500      .000
    -9.000   923.000   627.800      .000   969.900   627.200      .000   999.800   627.500      .000
      .000  1054.000   627.800      .000  1105.000   627.500      .000  1169.000   627.500      .000
      .000  1170.900   628.100      .000  1288.800   628.100      .000  1397.600   628.500      .000

     5.000    10.000  1085.000      .035  1127.900      .070  1158.100      .035  1180.000    10.000
  1397.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
 14405.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
     2.000   627.200  1085.000   628.200  1180.000      .000      .000      .000      .000      .000

 14535.000      .000      .000      .000   130.000   130.000   130.000      .000      .000      .000
      .000      .000      .000  1085.000      .000  1180.000      .000      .000      .000      .000

      .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1090.000  1185.000
   S-85**WILCOX AVENUE**SS 98+35.40
 14635.000    22.000  1126.700  1157.900   100.000   100.000   100.000      .000      .000      .000
    10.000      .000      .000      .000      .000      .000      .000   626.300   626.300      .000
   629.000   920.100   628.300   969.800   628.700   999.700   628.900  1048.800   629.300  1099.900
   624.400  1126.700   624.200  1126.700   616.500  1128.200   615.900  1128.300   615.200  1134.000
   616.400  1140.900   616.100  1143.800   615.800  1148.100   616.300  1156.100   616.600  1156.200
   624.400  1157.900   628.900  1176.800   629.300  1273.000   629.500  1371.800   629.800  1470.200
   629.700  1570.000   629.900  1639.600      .000      .000      .000      .000      .000      .000

     1.250     1.600     2.600      .000    30.000     2.250   236.000      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110  1090.000  1185.000
 14685.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
      .000      .000     1.000   624.200   628.400      .000      .000      .000      .000      .000
    10.000      .000      .000      .000      .000      .000      .000   628.400   628.400      .000
   -11.000   920.100   629.000      .000   969.800   628.300      .000   999.700   628.700      .000
      .000  1048.800   628.900      .000  1099.900   629.300      .000  1176.800   628.900      .000
      .000  1273.000   629.300      .000  1371.800   629.500      .000  1470.200   629.800      .000
      .000  1570.000   629.700      .000  1639.600   629.900      .000      .000      .000      .000

     5.000    10.000  1090.000      .035  1126.700      .070  1157.900      .035  1185.000    10.000
  1639.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
 14735.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
     2.000   629.200  1090.000   628.800  1185.000      .000      .000      .000      .000      .000

 14870.000      .000      .000      .000   135.000   135.000   135.000      .000      .510      .000
      .000      .000      .000  1090.000      .000  1185.000      .000      .000      .000      .000

      .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   910.000  1010.000
```

```
        S-90**MONROE STREET**SS 93+16.55
X1  14970.000     22.000    950.900    979.900    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    626.600    626.600       .000
GR    628.800    792.600    629.700    872.000    628.200    929.900    624.400    950.900    616.600    951.100
GR    615.400    952.000    616.000    960.100    616.700    965.300    616.900    966.400    615.400    972.900
GR    615.700    979.100    616.600    979.100    624.600    979.900    628.900    989.200    629.300    994.100
GR    629.300    999.800    629.400   1034.800    629.600   1112.700    629.200   1209.200    629.000   1305.800
GR    629.000   1395.100    628.800   1462.400       .000       .000       .000       .000       .000       .000

SB      1.250      1.600      2.600       .000     29.000      2.000    230.000       .000       .000       .000
ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    910.000   1010.000
X1  15020.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2       .000       .000      1.000    624.500    628.800       .000       .000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    628.800    628.800       .000
BT    -12.000    792.600    628.800       .000    872.000    629.700       .000    929.900    628.800       .000
BT       .000    989.200    628.900       .000    994.100    629.300       .000    999.800    629.300       .000
BT       .000   1034.800    629.400       .000   1112.700    629.600       .000   1209.200    629.200       .000
BT       .000   1305.800    629.000       .000   1395.100    629.000       .000   1462.400    628.800       .000

NH      5.000     10.000    900.000       .035    922.900       .070    972.300       .035    999.900     10.000
NH   1187.500       .000       .000       .000       .000       .000       .000       .000       .000       .000
QT      6.000    598.000    825.000    929.000   1113.000   1321.000   1489.000       .000       .000       .000
X1  15070.000     15.000    922.900    972.300     50.000     50.000     50.000       .000      -.230       .000
X4      1.000    629.500    900.000       .000       .000       .000       .000       .000       .000       .000
GR    629.300    739.700    629.000    791.900    629.500    872.900    629.900    922.900    616.700    946.900
GR    616.100    951.900    616.200    959.100    616.100    965.100    616.700    967.800    617.200    972.300
GR    624.200    985.200    627.700    985.900    629.900    999.900    630.100   1092.400    630.300   1187.500

NH      5.000     10.000    900.000       .035    922.900       .070    972.300       .035    999.900     10.000
NH   1187.500       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1  15160.000       .000       .000       .000     90.000     90.000     90.000       .000       .230       .000
X4      1.000    629.500    900.000       .000       .000       .000       .000       .000       .000       .000

X1  15205.000       .000       .000       .000     45.000     45.000     45.000       .000       .000       .000
X3       .000       .000       .000    900.000       .000   1000.000       .000       .000       .000       .000

NC       .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
        S-95**MADISON STREET**SS 90+38.42
X1  15305.000     19.000    948.600    977.000    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    627.000    627.000       .000
GR    630.200    928.900    629.500    942.000    626.400    947.100    624.400    947.100    624.400    948.600
GR    616.800    948.800    615.700    948.800    616.400    952.900    615.700    961.200    616.400    963.900
GR    616.500    969.800    615.800    976.900    616.700    976.900    624.400    977.000    624.400    977.600
GR    624.300    984.700    626.400    985.000    630.100    994.100    630.300   1000.000       .000       .000

SB      1.250      1.600      2.600       .000     31.000      1.000    249.000       .000       .000       .000
X1  15355.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2       .000       .000      1.000    624.400    629.700       .000       .000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    629.700    629.700       .000
BT     -4.000    928.900    630.200       .000    942.000    629.500       .000    994.100    630.100       .000
BT       .000   1000.000    630.300       .000       .000       .000       .000       .000       .000       .000
```

```
15390.000      .000      .000      .000    35.000    35.000    35.000      .000      .000      .000

     .035      .035      .050      .000      .000      .000      .000      .000      .000      .000
     .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   870.000  1010.000
   S-100**"ABANDONED BRIDGE"**SS 89+22.30
15420.000    24.000   925.600   980.000    30.000    30.000    30.000      .000      .000      .000
   10.000      .000      .000      .000      .000      .000      .000   629.400   629.400      .000
  629.500   557.100   629.000   672.800   627.500   758.900   629.600   826.700   629.800   922.700
  629.200   923.000   629.200   925.600   623.500   925.900   622.800   927.500   619.000   936.900
  617.300   939.900   615.700   940.000   615.100   944.000   616.400   950.300   619.600   952.800
  617.500   963.100   617.500   967.000   623.100   975.700   627.700   980.000   629.800   980.100
  630.400   995.500   630.900   999.800   631.800  1085.500   631.200  1217.900      .000      .000

    1.250     1.600     2.600      .000    22.000     9.400   400.000     1.140      .000      .000
     .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   870.000  1010.000
15460.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000
     .000      .000     1.000   629.100   629.700      .000      .000      .000      .000      .000
   10.000      .000      .000      .000      .000      .000      .000   629.700   629.700      .000
   -9.000   557.100   629.500      .000   672.800   629.000      .000   758.900   627.500      .000
     .000   826.700   629.600      .000   922.700   629.800      .000   980.100   629.800      .000
     .000   999.800   630.900      .000  1085.500   631.800      .000  1217.900   631.200      .000

15495.000      .000      .000      .000    35.000    35.000    35.000      .000      .000      .000
     .000      .000      .000   870.000      .000  1010.000      .000      .000      .000      .000

     .090      .090      .020      .000      .000      .000      .000      .000      .000      .000
     .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   700.000  1020.000
   S-110**CHICAGO AND NORTHWESTERN R.R.**SS 88+33.90
15530.000    33.000   938.000   984.200    35.000    35.000    35.000      .000      .300      .000
   10.000      .000      .000      .000      .000      .000      .000   629.100   629.100      .000
  630.000   117.000   629.600   220.000   629.400   321.000   629.300   427.000   629.500   530.000
  629.500   636.100   629.600   737.200   629.700   841.200   629.400   936.800   630.000   936.900
  630.000   938.000   628.600   938.000   618.000   939.000   617.800   946.000   617.500   948.900
  616.000   950.200   615.700   953.100   618.000   961.500   617.300   966.300   617.100   973.400
  617.600   974.400   628.500   984.200   630.400   984.300   630.500   985.300   629.600   985.400
  630.400  1000.000   630.600  1148.800   631.500  1319.000   632.600  1504.000   633.500  1669.000
  633.900  1811.000   635.000  2073.000   635.100  2089.000      .000      .000      .000      .000

    1.050     1.600     2.600      .000    27.000     4.500   395.400      .790      .000      .000
     .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   700.000  1020.000
15610.000      .000      .000      .000    80.000    80.000    80.000      .000      .000      .000
     .000      .000     1.000   628.600   629.500      .000      .000      .000      .000      .000
   10.000      .000      .000      .000      .000      .000      .000   629.500   630.400      .000
  -17.000   117.000   630.000      .000   220.000   629.600      .000   321.000   629.400      .000
     .000   427.000   629.300      .000   530.000   629.500      .000   636.100   629.500      .000
     .000   737.200   629.600      .000   841.200   629.700      .000   938.000   629.500      .000
     .000  1000.000   630.400      .000  1148.800   630.600      .000  1319.000   631.500      .000
     .000  1504.000   632.600      .000  1669.000   633.500      .000  1811.000   633.900      .000
     .000  2073.000   635.000      .000  2089.000   635.100      .000      .000      .000      .000
```

```
NC       .060      .060      .070       .000       .000       .000       .000       .000       .000       .000
NH      5.000    10.000   640.000       .060    893.300       .070    959.100       .060   1010.000     10.000
NH   1298.900      .000      .000       .000       .000       .000       .000       .000       .000       .000
X1  15650.000    20.000   893.300    959.100     40.000     40.000     40.000       .000       .000       .000
X4      2.000   632.700   640.000    630.700   1010.000       .000       .000       .000       .000       .000
GR    651.700   584.900   651.300    595.900    633.000    630.900    627.900    763.300    629.300    815.200
GR    627.500   893.300   619.500    918.900    617.800    922.200    617.200    927.800    617.000    934.900
GR    616.500   938.900   617.800    944.000    627.600    959.100    629.200    994.200    630.100   1000.100
GR    630.400  1000.200   631.000   1020.700    631.100   1114.000    631.300   1208.100    627.100   1298.900

NC       .000      .000      .000       .100       .300       .000       .000       .000       .000       .000
X1  16105.000    15.000   866.000    915.100    445.000    465.000    455.000       .000       .000       .000
GR    650.600   753.900   650.600    762.900    628.100    803.100    627.000    844.100    620.600    866.000
GR    618.500   869.100   617.700    871.900    617.500    880.100    617.300    888.200    618.500    895.100
GR    629.400   915.100   629.500    927.200    630.500    932.100    629.700    977.200    631.500   1031.000

X1  16390.000    16.000   916.300    965.300    295.000    280.000    285.000       .000       .000       .000
GR    649.500   824.400   630.700    857.500    627.500    884.000    620.400    916.300    618.600    919.400
GR    617.800   923.200   616.900    929.600    617.500    937.500    618.500    940.400    620.400    942.400
GR    628.600   965.300   629.100    973.300    630.300    974.400    630.000   1000.300    630.200   1025.400
GR    630.900  1054.600      .000       .000       .000       .000       .000       .000       .000       .000

NC       .000      .000      .000       .300       .500       .000       .000       .000       .000       .000
X1  16555.000      .000      .000       .000    165.000    165.000    165.000       .000       .410       .000

NC       .040      .030      .070       .000       .000       .000       .000       .000       .000       .000
ET       .000     9.110     9.110      9.110      9.110      9.110      9.110      9.110    900.000   1110.000
      S-115**WASHINGTON BLVD.**SS 76+87.99
X1  16655.000    28.000   951.900    978.000    100.000    100.000    100.000       .000       .000       .000
X3     10.000      .000      .000       .000       .000       .000       .000    628.900    628.900       .000
GR    630.100   650.000   630.100    650.100    629.500    744.000    629.500    744.100    629.100    815.000
GR    629.500   839.900   630.500    915.900    630.200    951.800    630.600    951.900    630.700    952.600
GR    627.600   952.700   619.200    952.700    618.700    952.700    618.700    958.900    618.900    964.600
GR    619.000   970.400   618.200    976.400    619.200    976.400    627.800    976.400    630.500    976.500
GR    630.600   978.000   629.900    978.000    630.300    999.800    629.900   1015.500    629.800   1118.100
GR    630.200  1218.800   630.200   1323.800    630.200   1425.600       .000       .000       .000       .000

SB       .900     1.600     2.600    765.000     23.000       .010    207.000       .000       .000       .000
ET       .000     9.110     9.110      9.110      9.110      9.110      9.110      9.110    900.000   1110.000
X1  16725.000      .000      .000       .000     70.000     70.000     70.000       .000       .000       .000
X2       .000      .000     1.000    627.700    630.000       .000       .000       .000       .000       .000
X3     10.000      .000      .000       .000       .000       .000       .000    630.000    630.000       .000

NC       .040      .035      .070       .000       .000       .000       .000       .000       .000       .000
NH      4.000      .040   955.200       .070    999.800       .035   1070.000     10.000   1495.800       .000
X1  16795.000    16.000   955.200    999.800     70.000     70.000     70.000       .000      -.290       .000
X4      1.000   628.910  1070.000       .000       .000       .000       .000       .000       .000       .000
GR    649.600   875.700   649.000    884.500    631.700    932.000    621.700    955.200    619.300    960.900
GR    618.500   966.900   618.200    971.900    618.500    978.900    619.200    984.000    629.100    999.800
GR    629.000  1003.900   629.700   1163.900    630.300   1196.000    630.500   1294.900    630.400   1395.700
GR    630.700  1495.800      .000       .000       .000       .000       .000       .000       .000       .000
```

```
     .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
    4.000      .040   955.200      .070   999.800      .035  1070.000    10.000  1495.800      .000
16910.000      .000      .000      .000   115.000   115.000   115.000      .000      .290      .000
    1.000   629.200  1070.000      .000      .000      .000      .000      .000      .000      .000

    4.000      .040   924.000      .070  1000.000      .035  1045.000    10.000  2144.000      .000
17205.000    23.000   924.000  1000.000   285.000   300.000   295.000      .000      .000      .000
    1.000   629.500  1045.000      .000      .000      .000      .000      .000      .000      .000
  649.100   847.800   648.100   857.900   647.800   862.800   629.700   924.000   620.200   945.700
  619.200   950.600   619.100   958.200   619.200   974.800   620.100   979.800   629.200  1000.000
  629.900  1073.200   630.400  1156.200   630.600  1244.200   630.600  1321.100   630.400  1469.200
  630.400  1556.000   630.400  1634.000   630.200  1722.000   630.100  1811.000   629.700  1898.000
  629.400  1977.000   629.600  2060.000   630.300  2144.000      .000      .000      .000      .000

     .040      .035      .070      .000      .000      .000      .000      .000      .000      .000
17455.000    13.000   917.900   982.100   275.000   245.000   250.000      .000      .000      .000
  648.800   827.100   648.600   847.900   632.300   882.200   627.200   917.900   620.000   936.300
  619.000   943.100   619.200   950.400   619.300   957.800   620.000   966.100   628.400   982.100
  630.000  1000.200   630.100  1012.900   630.900  1034.800      .000      .000      .000      .000

    4.000      .040   895.000      .070   960.200      .035  1100.000    10.000  1636.000      .000
17705.000    16.000   895.000   960.200   240.000   255.000   250.000      .000      .000      .000
    1.000   631.100  1100.000      .000      .000      .000      .000      .000      .000      .000
  643.500   810.700   643.000   832.100   632.900   859.800   629.100   895.000   619.900   911.200
  619.500   917.100   619.400   922.200   619.100   924.900   619.900   930.000   622.300   945.200
  628.400   960.200   631.000  1000.000   631.500  1049.300   631.100  1097.000   629.500  1408.000
  630.200  1636.000      .000      .000      .000      .000      .000      .000      .000      .000

     .040      .060      .070      .000      .000      .000      .000      .000      .000      .000
    4.000      .040   906.400      .070   996.400      .060  1095.000    10.000  1849.000      .000
18020.000    22.000   906.400   996.400   315.000   310.000   315.000      .000      .000      .000
    1.000   631.200  1095.000      .000      .000      .000      .000      .000      .000      .000
  648.400   736.400   634.100   792.600   632.900   847.800   632.000   906.400   623.200   947.400
  620.400   951.300   619.800   954.300   619.800   962.100   619.900   970.500   620.400   978.200
  623.300   984.100   628.300   996.400   628.100  1000.200   629.800  1012.400   631.200  1093.200
  631.000  1217.300   631.100  1334.600   632.400  1445.000   632.200  1551.000   632.500  1644.000
  633.300  1748.000   633.700  1849.000      .000      .000      .000      .000      .000      .000

    4.000    10.000   900.000      .040  1048.100      .070  1091.600      .060  1118.800      .000
    6.000   574.000   811.000   915.000  1097.000  1293.000  1462.000      .000      .000      .000
18355.000    16.000  1048.100  1091.600   345.000   320.000   335.000      .000      .000      .000
    1.000   633.100   900.000      .000      .000      .000      .000      .000      .000      .000
  632.800   679.800   633.800   711.000   633.600   736.500   633.000   836.700   633.200   945.800
  633.000   985.700   632.700   999.700   632.700  1023.600   622.800  1048.100   621.200  1052.900
  620.000  1056.800   620.100  1061.800   620.400  1067.200   621.200  1071.800   631.300  1091.600
  634.200  1118.800      .000      .000      .000      .000      .000      .000      .000      .000

     .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
18585.000      .000      .000      .000   230.000   230.000   230.000      .000      .500      .000
     .000      .000      .000   900.000      .000      .000      .000      .000      .000      .000
```

```
NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   925.000  1140.000
        S-120**ST. CHARLES ROAD**SS 57+18.33
X1 18685.000    28.000  1015.200  1057.600   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   631.200   631.200      .000
GR   631.700   584.000   630.900   754.000   631.200   770.000   630.900   785.000   631.500   834.000
GR   631.400  1000.000   630.900  1015.200   626.000  1020.000   623.600  1023.900   623.500  1026.200
GR   623.600  1028.200   623.100  1028.300   620.500  1029.200   620.900  1031.800   620.700  1034.100
GR   620.900  1039.100   621.800  1041.900   623.200  1042.000   623.900  1042.100   623.900  1043.900
GR   624.000  1046.200   631.500  1057.600   631.900  1112.200   632.300  1223.200   632.600  1336.200
GR   632.300  1459.400   632.500  1478.200   632.500  1491.300      .000      .000      .000      .000

SB      .900     1.600     2.600      .000    10.000     2.700   234.000     1.500      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   925.000  1140.000
X1 18735.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   630.800   631.500      .000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   631.500   631.500      .000
BT   -12.000   584.000   631.700      .000   754.000   630.900      .000   770.000   631.200      .000
BT      .000   785.000   630.900      .000   834.000   631.500      .000   921.000   631.500      .000
BT      .000  1022.000   631.800      .000  1060.000   631.800      .000  1190.000   632.200      .000
BT      .000  1223.200   632.300      .000  1336.200   632.600      .000  1508.000   632.800      .000

NC      .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
NH     5.000    10.000   925.000      .035  1015.200      .070  1057.600      .035  1140.000    10.000
NH  1491.300      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 18785.000      .000      .000      .000    50.000    50.000    50.000      .000    -1.200      .000
X4     2.000   630.400   925.000   630.700  1140.000      .000      .000      .000      .000      .000

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
NH     3.000    10.000   940.000      .035  1088.100      .070  1177.900      .000      .000      .000
X1 19000.000    19.000  1088.100  1177.900   215.000   210.000   215.000      .000      .000      .000
X4     1.000   631.000   940.000      .000      .000      .000      .000      .000      .000      .000
GR   633.300   602.600   632.600   732.400   631.900   751.300   632.100   765.200   631.900   779.300
GR   632.300   813.400   632.200   892.800   631.500   955.100   632.000  1000.300   632.200  1045.100
GR   632.700  1088.100   625.700  1107.800   624.500  1134.900   622.600  1138.600   621.000  1144.100
GR   620.600  1147.900   621.000  1153.000   622.700  1157.800   633.400  1177.900      .000      .000

NH     5.000    10.000   960.000      .035  1093.000      .070  1168.000      .035  1185.000    10.000
NH  1377.900      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 19335.000    26.000  1093.000  1168.000   335.000   335.000   335.000      .000      .000      .000
X4     2.000   632.700   960.000   633.750  1185.000      .000      .000      .000      .000      .000
GR   634.000   711.100   632.800   739.000   633.100   751.000   632.900   766.100   633.800   781.300
GR   633.700   833.000   632.700   922.200   632.600  1000.000   632.400  1016.300   632.800  1093.000
GR   632.800  1093.100   626.100  1111.100   625.900  1121.000   623.200  1124.100   622.800  1128.100
GR   622.300  1130.300   622.200  1135.400   622.800  1141.300   623.200  1145.200   633.600  1168.000
GR   634.300  1219.800   632.700  1280.800   632.900  1295.000   632.600  1307.800   634.000  1338.100
GR   634.200  1377.900      .000      .000      .000      .000      .000      .000      .000      .000
```

```
     5.000     10.000   1000.000       .035   1123.000       .070   1164.900       .035   1240.000     10.000
  1482.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
 19625.000     18.000   1123.000   1164.900    295.000    290.000    290.000       .000       .000       .000
     2.000    634.400   1000.000    633.300   1240.000       .000       .000       .000       .000       .000
   634.600    985.800    634.400    999.900    634.400   1042.800    633.700   1091.700    626.100   1123.000
   624.500   1130.700    623.300   1135.700    622.900   1137.900    622.500   1144.100    622.600   1147.000
   622.800   1150.000    624.400   1152.000    632.000   1164.900    633.000   1192.200    633.800   1252.100
   633.100   1327.100    634.200   1385.600    632.800   1482.000       .000       .000       .000       .000

      .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
     3.000     10.000    741.100       .070    879.900     10.000    999.700       .000       .000       .000
 20145.000     15.000    741.100    879.900    545.000    480.000    520.000       .000       .000       .000
   634.400    666.300    633.600    741.100    623.700    768.200    623.200    771.800    623.200    779.800
   623.100    785.800    623.600    790.900    625.900    805.700    628.600    829.200    632.800    841.200
   632.800    860.300    635.600    879.900    631.900    906.100    632.800    996.100    635.900    999.700

     3.000     10.000    805.200       .070    943.300     10.000   1375.300       .000       .000       .000
 20146.000     21.000    805.200    943.300      1.000      1.000      1.000       .000       .000       .000
   639.700    705.000    637.700    721.200    636.300    767.200    636.500    805.200    626.700    821.000
   626.100    826.100    626.600    830.900    626.300    836.200    626.500    844.700    626.100    849.000
   626.600    853.100    632.100    868.800    632.700    904.800    636.900    943.300    632.200    982.100
   635.900   1000.300    631.000   1015.900    630.500   1103.000    630.600   1192.300    630.700   1283.200
   631.000   1375.300       .000       .000       .000       .000       .000       .000       .000       .000

      .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
 20255.000       .000       .000       .000     89.000    129.000    109.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000

      .060       .060       .070       .000       .000       .000       .000       .000       .000       .000
    S-125**CHICAGO AND NORTHWESTERN R.R.**SS 41+82.50
 20355.000     30.000   1036.900   1150.700     80.000    120.000    100.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    635.500    635.500       .000
   635.000    741.000    635.000    741.100    635.000    741.200    635.400    824.900    635.400    825.000
   634.800    999.900    634.500   1036.900    632.000   1042.200    627.000   1051.900    625.800   1054.600
   623.900   1058.800    623.500   1066.000    623.000   1070.700    622.500   1076.600    622.100   1083.700
   622.400   1088.800    622.300   1095.500    623.000   1101.700    622.700   1106.600    623.800   1112.000
   625.200   1115.900    626.900   1117.800    630.300   1128.600    631.800   1150.100    633.400   1150.700
   634.400   1183.700    635.000   1258.900    634.300   1340.800    635.300   1427.000    635.800   1515.900

     1.050      1.600      2.600       .000     52.000     10.000    840.000      2.600       .000       .000
 20435.000       .000       .000       .000     80.000     80.000     80.000       .000       .000       .000
      .000       .000      1.000    634.500    636.500       .000       .000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    636.500    636.500       .000

      .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
 20515.000       .000       .000       .000     60.000    100.000     80.000       .000       .400       .000
      .000       .000       .000    870.000       .000   1240.000       .000       .000       .000       .000
```

```
ET       .000      9.110     9.110     9.110     9.110     9.110     9.110     9.110   890.000  1300.000
     S-130**CHICAGO AND NORTHWESTERN R.R.**SS 39+81.00
X1  20595.000    36.000  1074.400  1158.700    60.000   100.000    80.000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   633.400   633.400      .000
GR    634.300   722.000   634.300   722.100   634.600   825.800   634.600   825.900   634.600   826.000
GR    635.200   922.800   635.500  1000.000   636.100  1069.700   636.700  1070.500   636.700  1072.200
GR    633.400  1072.200   633.000  1074.400   630.300  1090.500   627.100  1098.000   626.900  1098.100
GR    626.800  1098.700   625.900  1100.700   625.000  1103.700   624.400  1106.900   624.300  1109.600
GR    625.400  1114.000   624.800  1120.700   625.200  1125.000   626.900  1126.100   628.400  1135.800
GR    628.400  1142.600   631.800  1158.700   633.500  1159.100   633.500  1160.900   637.300  1161.400
GR    637.300  1163.100   637.300  1201.100   638.300  1276.900   637.900  1364.000   637.900  1448.600
GR    638.200  1581.700      .000      .000      .000      .000      .000      .000      .000      .000

SB      1.250     1.600     2.600      .000    14.000    11.700   360.000     4.000      .000      .000
ET       .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   890.000  1300.000
X1  20645.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2       .000      .000     1.000   633.500   635.200      .000      .000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   635.200   637.300      .000
BT    -12.000   722.000   634.300      .000   826.000   634.600      .000   922.800   635.200      .000
BT       .000  1000.000   635.500      .000  1069.700   636.700      .000  1070.500   636.700      .000
BT       .000  1161.400   637.300      .000  1201.100   637.300      .000  1276.900   638.300      .000
BT       .000  1364.000   637.900      .000  1448.600   637.900      .000  1581.700   638.200      .000

NH      5.000    10.000   890.000      .035  1074.400      .070  1158.700      .035  1300.000    10.000
NH   1581.700      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1  20695.000      .000      .000      .000   100.000     5.000    50.000      .000    -1.800      .000
X4      2.000   633.200   890.000   636.400  1300.000      .000      .000      .000      .000      .000

NC       .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
NH      3.000    10.000  1037.500      .070  1103.400    10.000  1341.000      .000      .000      .000
QT      6.000   554.000   774.000   872.000  1048.000  1257.000  1421.000      .000      .000      .000
X1  20830.000    22.000  1037.500  1103.400   220.000    55.000   135.000      .000     1.800      .000
GR    648.900   832.900   641.000   869.100   641.100   949.000   640.300   975.000   639.000  1000.200
GR    637.100  1037.500   628.200  1056.100   627.100  1065.000   625.800  1068.900   625.200  1074.100
GR    625.300  1077.100   625.400  1085.100   627.100  1089.900   637.600  1103.400   636.300  1148.600
GR    636.300  1168.500   638.100  1196.400   637.900  1205.900   637.700  1216.100   638.000  1262.200
GR    637.600  1279.300   636.300  1341.000      .000      .000      .000      .000      .000      .000

NC       .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
X1  21065.000    20.000  1177.800  1231.200   250.000   220.000   235.000      .000      .000      .000
GR    646.000   842.700   644.700   889.600   643.100   955.800   641.500   999.700   630.900  1025.900
GR    631.200  1087.800   633.100  1137.800   631.400  1177.800   629.100  1187.000   627.300  1196.200
GR    626.200  1203.000   626.100  1209.300   626.200  1217.200   627.400  1221.300   629.400  1231.200
GR    630.300  1247.900   634.300  1265.200   633.800  1310.100   634.400  1371.900   635.600  1419.000

QT      6.000   552.000   773.000   881.000  1056.000  1254.000  1417.000      .000      .000      .000
X1  21580.000    20.000  1178.300  1231.000   475.000   545.000   515.000      .000      .000      .000
GR    649.300   855.000   647.100   908.200   643.800   963.100   641.800   999.900   630.900  1025.800
GR    631.000  1088.100   633.000  1137.900   631.200  1178.300   629.000  1187.000   627.300  1196.200
GR    626.000  1203.000   626.000  1209.200   626.100  1217.000   627.300  1221.000   629.400  1231.000
GR    630.400  1248.100   634.300  1265.200   633.800  1310.100   634.400  1372.000   635.300  1419.100
```

```
 21885.000     23.000   1087.800   1131.700    310.000    305.000    305.000       .000       .000       .000
   652.600    954.500    651.500    976.500    650.500    991.600    649.500   1000.000    648.400   1007.100
   632.200   1041.400    631.200   1067.700    631.200   1087.800    629.200   1096.300    627.200   1105.100
   625.700   1112.200    625.500   1115.300    625.600   1120.800    627.200   1125.900    631.300   1131.700
   634.100   1151.800    636.200   1189.600    636.100   1229.700    634.600   1281.900    634.600   1325.900
   634.800   1368.700    635.100   1439.900    636.200   1544.600       .000       .000       .000       .000

      .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
 21995.000       .000       .000       .000     60.000    160.000    110.000       .000       .100       .000

    S-135**CHICAGO AND NORTHWESTERN R.R.**SS 25+53.70
 22095.000     21.000   1009.300   1135.000     50.000    150.000    100.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    648.400    648.400       .000
   653.100    607.000    653.100    607.100    652.800    673.000    653.000    763.000    653.400    860.000
   652.900    943.000    652.800   1000.100    650.100   1009.300    627.000   1055.200    626.200   1059.100
   625.400   1063.100    625.700   1066.200    627.000   1069.200    632.300   1078.300    630.500   1085.100
   631.000   1105.500    645.000   1135.000    652.900   1141.200    652.300   1219.300    651.500   1316.700
   655.100   1398.500       .000       .000       .000       .000       .000       .000       .000       .000

     1.050      1.600      2.600       .000     50.000      9.000   1540.000      2.000       .000       .000
 22135.000       .000       .000       .000     40.000     40.000     40.000       .000       .000       .000
      .000       .000      1.000    645.000    651.700       .000       .000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    651.700    651.700       .000

      .030       .035       .075       .000       .000       .000       .000       .000       .000       .000
 22175.000       .000       .000       .000     40.000     40.000     40.000       .000      -.200       .000

      .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
     3.000     10.000    859.500       .070    933.500     10.000   1010.300       .000       .000       .000
 22385.000     20.000    859.500    933.500    290.000    130.000    210.000       .000       .200       .000
   638.300    680.300    637.900    734.300    637.200    806.400    637.400    851.800    636.000    859.500
   631.300    869.400    627.400    875.400    626.300    882.600    626.000    887.600    625.800    893.400
   626.300    897.700    627.400    905.400    627.800    906.500    633.900    918.100    642.800    933.500
   642.500    937.300    639.500    947.500    640.000    969.500    651.800   1000.400    652.300   1010.300

     3.000     10.000    891.900       .070    977.800     10.000   1088.400       .000       .000       .000
 22715.000     22.000    891.900    977.800    335.000    325.000    330.000       .000       .000       .000
   634.000    215.000    634.000    215.100    635.500    268.000    634.400    375.000    637.100    425.000
   637.500    539.300    637.600    654.100    637.700    768.900    638.000    882.000    637.600    891.900
   633.400    903.900    627.700    913.200    626.800    917.900    626.300    931.200    626.800    945.000
   627.600    948.000    633.900    957.300    645.200    977.800    646.300   1000.100    646.100   1005.700
   647.600   1047.700    650.800   1088.400       .000       .000       .000       .000       .000       .000

     3.000     10.000    925.100       .070    991.500     10.000   1101.800       .000       .000       .000
 23105.000     21.000    925.100    991.500    400.000    370.000    390.000       .000       .000       .000
   638.700    663.300    637.700    729.200    637.700    794.800    637.600    836.500    630.700    870.000
   630.900    892.000    636.200    907.400    636.400    912.400    636.200    925.100    634.100    931.300
   627.900    940.400    627.000    948.300    626.800    954.400    627.100    961.100    627.900    969.400
   634.300    980.400    642.400    991.500    643.500   1000.300    644.200   1029.100    646.900   1092.000
   649.000   1101.800       .000       .000       .000       .000       .000       .000       .000       .000
```

```
NH     3.000    10.000   905.000      .070  1000.200    10.000  1069.800      .000      .000      .000
X1 23360.000    21.000   905.000  1000.200   250.000   255.000   255.000      .000      .000      .000
GR   637.900   691.800   636.700   704.100   632.500   728.000   631.400   782.000   631.300   840.100
GR   636.000   867.000   636.200   879.800   636.200   905.000   633.600   910.100   629.900   917.200
GR   628.600   947.900   627.800   951.000   627.200   955.600   626.200   965.300   627.300   972.300
GR   627.800   977.000   634.100   985.900   641.700  1000.200   641.900  1003.900   645.100  1056.600
GR   647.100  1069.800      .000      .000      .000      .000      .000      .000      .000      .000

NH     3.000    10.000  1030.000      .070  1116.400    10.000  1269.900      .000      .000      .000
X1 23660.000    18.000  1030.000  1116.400   180.000   375.000   300.000      .000      .000      .000
GR   637.700   800.400   637.600   901.300   637.400   948.200   637.900  1000.300   636.100  1026.100
GR   635.600  1030.000   627.900  1056.200   627.600  1058.900   627.800  1073.300   627.300  1085.900
GR   627.900  1091.400   629.900  1095.100   638.100  1116.400   635.200  1126.200   635.500  1127.400
GR   638.300  1139.200   637.800  1206.100   638.400  1269.900      .000      .000      .000      .000

NH     3.000    10.000  1040.300      .070  1116.200    10.000  1236.000      .000      .000      .000
X1 23995.000    21.000  1040.300  1116.200   325.000   345.000   335.000      .000      .000      .000
GR   638.700   867.400   638.700   915.400   637.600   990.000   637.700  1000.200   636.600  1029.800
GR   636.800  1035.200   636.500  1040.300   628.000  1049.300   626.800  1053.200   625.800  1060.200
GR   626.000  1063.300   628.100  1070.200   630.100  1074.100   630.100  1097.200   636.200  1116.200
GR   632.300  1127.100   631.900  1131.700   636.700  1141.200   636.900  1178.100   637.800  1212.100
GR   637.900  1236.000      .000      .000      .000      .000      .000      .000      .000      .000

NH     4.000    10.000  5970.400      .030  6061.400      .070  6118.400      .035  6199.700      .000
QT     6.000   378.000   527.000   597.000   746.000   878.000  1032.000      .000      .000      .000
X1 24185.000    24.000  6061.400  6118.400   245.000   130.000   190.000      .000      .000      .000
GR   636.500  4581.500   636.000  4641.500   635.778  5141.500   635.554  5641.500   635.532  5691.500
GR   635.500  5881.500   636.500  5912.100   635.400  5947.600   635.800  5955.900   637.900  5970.400
GR   635.100  5982.300   635.200  6000.300   635.000  6030.300   634.400  6061.400   631.100  6075.300
GR   628.300  6076.400   627.600  6083.200   627.000  6089.500   627.400  6096.400   628.300  6099.400
GR   629.800  6101.500   635.700  6118.400   637.700  6149.600   638.400  6199.700      .000      .000

NC      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
X1 24320.000      .000      .000      .000    95.000   175.000   135.000      .000      .200      .000
X3      .000      .000      .000   970.400      .000      .000      .000      .000      .000      .000

NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   810.000  1110.000
      S-140**LAKE STREET**SS 132+82.77
X1 24420.000    30.000   937.800   991.800    20.000   180.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   636.900   636.900      .000
GR   635.900   509.000   635.900   509.100   635.900   509.200   635.400   583.100   635.300   583.200
GR   635.300   583.300   636.800   704.100   637.000   803.900   636.900   910.000   636.800   931.900
GR   636.600   935.200   631.300   937.800   629.600   947.100   628.900   954.500   628.000   957.200
GR   628.200   960.100   627.900   965.700   628.100   969.100   627.900   972.900   627.700   975.100
GR   628.000   978.800   628.800   981.200   629.800   982.800   631.700   986.900   632.100   991.800
GR   636.300   998.000   636.200  1000.000   636.600  1046.200   636.300  1098.900   637.300  1273.500
```

```
     1.250     1.600     2.600      .000    30.000     2.000   284.000     1.700      .000      .000
      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   810.000  1110.000
 24550.000      .000      .000      .000   150.000   100.000   130.000      .000      .000      .000
      .000      .000     1.000   634.800   637.500      .000      .000      .000      .000      .000
    10.000      .000      .000      .000      .000      .000      .000   636.800   637.500      .000
   -12.000   509.000   635.900      .000   509.100   635.900      .000   509.200   635.900      .000
      .000   583.100   635.400      .000   583.200   635.300      .000   583.300   635.300      .000
      .000   704.100   636.800      .000   932.000   637.500      .000   932.000   638.600      .000
      .000   998.000   638.600      .000   998.000   637.500      .000  1170.000   637.500      .000

     5.000    10.000   940.000      .030   964.200      .070  1000.000      .050  1060.200    10.000
  1290.200      .000      .000      .000      .000      .000      .000      .000      .000      .000
 24685.000    15.000   964.200  1000.000   215.000    65.000   135.000      .000      .000      .000
     1.000   636.400   940.000      .000      .000      .000      .000      .000      .000      .000
   636.900   778.900   636.300   830.200   636.600   897.100   636.400   946.100   636.200   964.200
   629.300   975.500   628.300   977.500   627.900   980.200   628.000   982.300   628.400   984.200
   628.600   987.900   629.300   989.900   635.900  1000.000   636.200  1060.200   638.000  1290.200

      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
     5.000    10.000  5890.000      .030  5910.100      .070  5947.400      .050  6000.200    10.000
  6465.500      .000      .000      .000      .000      .000      .000      .000      .000      .000
 24855.000    25.000  5910.100  5947.400   240.000   110.000   170.000      .000      .000      .000
     1.000   635.250  5890.000      .000      .000      .000      .000      .000      .000      .000
   637.000  4508.300   636.500  4558.300   636.000  4600.000   636.000  4610.000   636.000  4620.000
   634.000  5758.300   634.900  5856.200   635.500  5909.300   634.600  5910.100   634.800  5911.500
   629.400  5922.000   627.900  5925.300   627.800  5928.100   628.200  5931.100   629.300  5934.000
   634.900  5947.400   634.800  5948.800   634.700  5950.000   634.800  5975.200   634.600  6000.200
   634.500  6005.300   634.400  6070.500   636.000  6148.100   636.000  6164.500   637.000  6465.500

     5.000    10.000  5915.000      .045  5967.000      .040  5997.500      .045  6020.000    10.000
  6801.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
 25095.000    28.000  5967.000  5997.500   240.000   240.000   240.000      .000      .000      .000
     2.000   635.250  5915.000   633.900  6020.000      .000      .000      .000      .000      .000
   638.000  3484.000   636.000  3504.000   634.000  3554.000   636.000  3884.000   636.000  4564.000
   634.800  5354.000   634.800  5354.100   634.800  5354.200   634.100  5459.000   634.100  5459.100
   633.900  5564.400   634.200  5673.600   634.800  5785.000   635.200  5883.100   635.200  5958.200
   635.200  5967.000   629.900  5974.900   628.800  5978.600   628.700  5985.800   628.900  5989.700
   629.900  5992.700   633.700  5997.500   634.000  5999.800   633.900  6013.600   634.100  6099.600
   634.400  6191.600   636.000  6531.600   638.000  6801.600      .000      .000      .000      .000

     5.000    10.000  5925.200      .045  5940.300      .040  5975.200      .045  6035.000    10.000
  7123.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
 25315.000    25.000  5940.300  5975.200   220.000   225.000   220.000      .000      .000      .000
     2.000   634.600  5925.200   634.250  6035.000      .000      .000      .000      .000      .000
   638.000  3571.500   636.000  3591.500   634.000  3681.500   636.000  3771.500   636.000  4421.500
   635.100  5421.500   634.800  5519.900   634.400  5621.200   634.600  5731.100   634.100  5833.400
   634.300  5902.900   634.700  5940.300   630.000  5945.800   628.600  5951.200   628.100  5955.900
   628.400  5963.900   629.900  5967.000   634.100  5975.200   634.200  6000.100   634.100  6117.000
   634.200  6223.000   634.100  6307.000   635.500  6433.000   636.000  6883.000   638.000  7123.000
```

```
NH       5.000     10.000   5950.000       .045   5968.200       .040   5998.000       .045   6015.000     10.000
NH    6081.900       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1   25545.000     19.000   5968.200   5998.000    200.000    290.000    230.000       .000       .000       .000
X4       2.000    635.600   5950.000    637.250   6015.000       .000       .000       .000       .000       .000
GR     638.000   4381.500    636.000   4991.500    636.000   4991.600    636.000   4991.700    636.000   4991.800
GR     634.800   5891.500    634.800   5936.100    635.800   5953.200    635.900   5968.200    630.100   5976.400
GR     628.900   5978.900    628.100   5982.400    628.200   5985.000    630.200   5987.400    631.000   5987.400
GR     636.800   5998.000    636.700   6000.100    637.400   6019.000    637.000   6081.900       .000       .000

NC        .035       .030       .045       .300       .500       .000       .000       .000       .000       .000
X1   25605.000       .000       .000       .000     60.000     60.000     60.000       .000       .200       .000

ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1010.000   1080.000
        S-160**MANNHEIM ROAD**SS 120+23.12
X1   25705.000     34.000   1011.100   1043.000    120.000     80.000    100.000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    635.200    635.200       .000
GR     635.500    547.000    635.500    547.100    635.700    563.000    635.600    578.000    636.100    631.000
GR     635.900    734.800    636.300    841.200    636.300    943.900    636.200    999.800    636.500   1003.800
GR     636.500   1010.000    633.900   1011.100    630.900   1012.000    630.200   1015.100    629.800   1015.100
GR     629.600   1015.200    629.300   1018.300    628.500   1020.900    627.200   1023.000    627.100   1025.200
GR     626.800   1028.000    627.200   1030.000    627.500   1032.000    628.000   1033.100    628.600   1038.000
GR     629.200   1042.000    629.800   1043.000    634.000   1043.000    635.500   1050.600    635.600   1050.700
GR     636.000   1050.800    636.400   1176.900    636.900   1281.900    637.400   1396.900       .000       .000

SB       1.250      1.600      2.600       .000     16.000      2.000    164.000      1.000       .000       .000
ET        .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110   1010.000   1080.000
X1   25785.000       .000       .000       .000     90.000     70.000     80.000       .000       .000       .000
X2        .000       .000      1.000    633.900    636.400       .000       .000       .000       .000       .000
X3      10.000       .000       .000       .000       .000       .000       .000    636.400    636.400       .000
BT     -14.000    547.000    635.500       .000    547.100    635.500       .000    563.000    635.700       .000
BT        .000    578.000    635.600       .000    631.000    636.100       .000    734.800    635.900       .000
BT        .000    841.200    636.300       .000   1003.800    636.500       .000   1003.800    637.000       .000
BT        .000   1051.000    637.000       .000   1051.000    636.500       .000   1176.900    636.400       .000
BT        .000   1281.900    636.900       .000   1396.900    637.400       .000       .000       .000       .000

NH       5.000     10.000   6060.300       .040   6084.700       .050   6114.800       .045   6120.000     10.000
NH    6618.900       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1   25865.000     36.000   6084.700   6114.800     80.000     80.000     80.000       .000      -.100       .000
X4       1.000    638.000   6120.000       .000       .000       .000       .000       .000       .000       .000
GR     638.000   3851.000    636.000   4561.000    636.000   4621.000    636.000   4621.100    636.000   4621.200
GR     636.100   5021.000    635.900   5114.000    636.200   5212.000    636.000   5294.000    636.000   5294.100
GR     636.200   5374.000    635.500   5466.000    635.600   5552.000    635.900   5567.000    635.600   5581.000
GR     636.000   5604.000    636.400   5683.000    636.400   5759.000    636.600   5837.000    636.600   5916.000
GR     636.900   6000.000    637.100   6030.900    636.800   6060.300    635.800   6084.700    632.100   6085.500
GR     630.100   6090.800    629.300   6093.700    629.400   6096.900    629.300   6099.900    638.000   6114.800
GR     637.700   6161.100    638.100   6232.800    638.300   6328.000    638.500   6440.900    639.800   6547.900
GR     638.800   6618.900       .000       .000       .000       .000       .000       .000       .000       .000
```

```
      .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
     6.000    345.000    474.000    543.000    692.000    824.000    978.000       .000       .000       .000
 25910.000       .000       .000       .000     45.000     45.000     45.000       .000       .100       .000

     5.000     10.000   6135.000       .040   6140.400       .045   6173.500       .045   6200.000     10.000
  6648.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
 26130.000     34.000   6140.400   6173.500    220.000    225.000    220.000       .000       .000       .000
     2.000    635.250   6135.000    637.750   6200.000       .000       .000       .000       .000       .000
   638.000   3823.000    636.000   4623.000    635.700   4733.000    635.700   4733.100    635.700   4733.200
   636.400   5013.000    636.400   5262.000    636.400   5347.000    636.600   5432.000    636.300   5515.000
   636.000   5597.000    636.000   5674.000    635.600   5742.000    635.500   5821.000    635.700   5902.000
   635.900   5984.700    635.800   6000.700    635.600   6031.200    635.500   6092.500    634.800   6127.100
   634.800   6140.400    630.200   6148.000    629.300   6150.000    629.100   6153.900    629.600   6158.900
   630.400   6162.000    630.800   6164.100    637.200   6173.500    637.500   6255.400    637.500   6346.200
   637.300   6422.400    637.300   6505.300    637.600   6585.400    637.700   6648.000       .000       .000

     4.000     10.000   6020.000       .040   6021.000       .045   6060.000       .045   6079.000       .000
 26340.000     24.000   6021.000   6060.000    195.000    235.000    210.000       .000       .000       .000
     1.000    636.000   6020.000       .000       .000       .000       .000       .000       .000       .000
   638.000   4630.000    636.000   5570.000    636.000   5730.000    636.000   5730.100    636.000   5730.200
   636.300   5870.000    636.500   5889.000    636.500   5950.000    636.900   5986.000    636.900   6000.000
   636.200   6017.000    636.100   6018.000    635.800   6021.000    631.800   6026.000    631.200   6028.000
   629.200   6030.000    629.900   6035.000    629.500   6041.000    630.100   6043.000    631.200   6045.000
   633.000   6046.000    637.500   6060.000    638.000   6067.000    638.400   6079.000       .000       .000

     5.000     10.000   6005.000       .035   6033.900       .045   6065.900       .045   6082.700     10.000
  6356.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
 26430.000     38.000   6033.900   6065.900     90.000     90.000     90.000       .000       .000       .000
     1.000    636.100   6005.000       .000       .000       .000       .000       .000       .000       .000
   638.000   4288.100    638.000   4288.200    638.000   4288.300    638.000   4288.400    638.000   4288.500
   636.700   5428.100    636.700   5517.400    636.700   5604.000    636.000   5693.100    635.100   5785.800
   635.200   5798.800    635.100   5812.800    634.700   5913.100    635.900   5923.100    635.600   5971.900
   635.800   5999.800    636.800   6032.200    637.800   6033.900    637.900   6035.000    635.900   6035.000
   633.900   6043.100    632.200   6043.100    631.800   6047.100    631.400   6050.800    631.800   6057.100
   631.900   6061.000    632.200   6061.100    637.400   6064.800    637.700   6065.900    637.800   6066.800
   637.900   6066.900    637.900   6068.000    637.800   6068.900    637.800   6082.700    637.400   6082.900
   637.100   6104.600    637.400   6106.000    638.000   6356.000       .000       .000       .000       .000

     5.000     10.000   1005.000       .040   1015.100       .045   1054.000       .045   1080.000     10.000
  1210.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
 26550.000     21.000   1015.100   1054.000    140.000    110.000    120.000       .000       .000       .000
     2.000    635.600   1005.000    637.900   1080.000       .000       .000       .000       .000       .000
   637.800    187.900    637.800    188.000    637.800    188.100    637.800    188.200    637.800    188.300
   636.400    897.900    636.700    918.600    636.300    950.100    636.100    978.900    636.200   1000.100
   635.800   1015.100    635.400   1016.100    631.600   1023.700    630.500   1026.200    628.800   1033.100
   630.400   1040.000    631.500   1044.000    637.600   1054.000    637.600   1055.100    637.600   1060.000
   638.000   1210.000       .000       .000       .000       .000       .000       .000       .000       .000
```

```
NH     5.000    10.000  6000.200      .035  6061.400      .045  6082.000      .045  6100.100    10.000
NH  6199.900      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 26685.000    23.000  6061.400  6082.000   135.000   135.000   135.000      .000      .000      .000
X4     1.000   638.000  6100.100      .000      .000      .000      .000      .000      .000      .000
GR   638.000  4574.800   636.000  5574.800   636.000  5644.800   636.000  5644.900   636.000  5645.000
GR   635.100  5874.800   635.900  5936.800   635.900  5988.800   635.800  6000.200   635.900  6028.900
GR   635.800  6059.200   638.000  6061.400   635.200  6062.200   632.000  6067.300   631.400  6068.100
GR   630.600  6073.000   630.600  6077.200   632.000  6078.100   637.600  6082.000   637.800  6084.200
GR   638.200  6114.200   637.700  6158.000   638.200  6199.900      .000      .000      .000      .000

NH     5.000    10.000  1065.000      .035  1074.000      .065  1111.000      .035  1165.000    10.000
NH  2477.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 26935.000    19.000  1074.000  1111.000   160.000   320.000   250.000      .000      .000      .000
X4     2.000   635.300  1065.000   637.150  1165.000      .000      .000      .000      .000      .000
GR   635.000   785.300   635.100   879.100   635.000   951.000   635.200   999.900   635.000  1049.900
GR   635.400  1069.100   637.200  1074.000   631.800  1086.200   631.000  1090.400   630.200  1094.200
GR   630.200  1100.100   631.800  1102.000   636.200  1111.000   637.100  1115.200   637.000  1130.600
GR   637.000  1148.800   637.400  1209.000   637.200  1277.000   640.000  2477.000      .000      .000

NH     5.000    10.000  6030.000      .035  6054.700      .065  6088.700      .035  6130.000    10.000
NH  7288.700      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 27105.000    22.000  6054.700  6088.700   220.000   125.000   170.000      .000      .000      .000
X4     2.000   636.400  6030.000   638.000  6130.000      .000      .000      .000      .000      .000
GR   639.000  4511.800   638.000  4661.000   638.000  4661.900   638.000  4662.000   638.000  4662.100
GR   636.900  5801.800   636.100  5855.100   635.800  5892.900   636.000  5929.200   635.800  5961.700
GR   635.800  5999.900   636.700  6041.100   637.700  6054.700   632.100  6063.700   630.800  6067.100
GR   628.900  6075.000   629.100  6078.900   632.100  6082.000   637.200  6088.700   637.700  6091.000
GR   638.000  6118.700   640.000  7288.700      .000      .000      .000      .000      .000      .000

NH     5.000    10.000  6010.000      .035  6041.600      .065  6077.000      .035  6110.000    10.000
NH  6863.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 27215.000    23.000  6041.600  6077.000   140.000    85.000   110.000      .000      .000      .000
X4     2.000   637.000  6010.000   637.500  6110.000      .000      .000      .000      .000      .000
GR   640.000  4478.000   640.000  4478.100   640.000  4478.200   640.000  4478.300   640.000  4478.400
GR   636.200  5858.000   637.200  5924.600   637.200  5984.400   637.100  5999.900   636.900  6032.700
GR   636.600  6041.600   633.600  6047.800   632.100  6049.700   631.200  6053.600   630.000  6058.600
GR   630.300  6065.900   632.100  6069.700   634.400  6073.700   637.200  6077.000   637.000  6080.800
GR   637.700  6114.700   637.400  6163.600   640.000  6863.600      .000      .000      .000      .000

NH     5.000    10.000  6010.000      .035  6041.200      .065  6092.400      .035  6140.000    10.000
NH  6359.900      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 27380.000    24.000  6041.200  6092.400   180.000   160.000   165.000      .000      .000      .000
X4     2.000   636.000  6010.000   637.300  6140.000      .000      .000      .000      .000      .000
GR   639.900  4123.200   639.900  4123.300   639.900  4123.400   639.900  4123.500   639.900  4123.600
GR   636.800  5723.200   636.300  5784.000   635.700  5884.100   635.300  5989.200   635.500  6000.300
GR   637.800  6041.200   634.200  6057.400   632.300  6063.100   631.400  6065.300   630.300  6067.300
GR   629.800  6074.200   630.800  6077.300   631.600  6082.100   632.100  6085.300   636.900  6092.400
GR   637.200  6110.400   637.300  6165.300   637.500  6261.400   638.300  6359.900      .000      .000
```

```
I      5.000    10.000  5999.800      .035  6045.900      .065  6089.200      .035  6110.000    10.000
I   6710.100      .000      .000      .000      .000      .000      .000      .000      .000      .000
I  27455.000    21.000  6045.900  6089.200    10.000   160.000    75.000      .000      .000      .000
I      1.000   637.400  6110.000      .000      .000      .000      .000      .000      .000      .000
R    638.500  4399.800   638.500  4399.900   638.500  4400.000   638.500  4400.100   638.500  4400.200
R    635.300  5999.800   635.800  6013.600   637.700  6045.900   632.100  6059.100   631.300  6060.200
R    630.800  6064.200   630.400  6068.000   630.600  6073.400   630.800  6075.100   632.100  6077.100
R    637.200  6089.200   637.300  6108.100   637.100  6143.100   637.300  6150.100   638.000  6340.100
R    640.000  6710.100      .000      .000      .000      .000      .000      .000      .000      .000

H      4.000      .035   684.900      .065   722.200      .035   750.000    10.000   999.900      .000
1  27695.000    15.000   684.900   722.200   240.000   240.000   240.000      .000      .000      .000
4      1.000   638.000   750.000      .000      .000   750.000      .000      .000      .000      .000
R    638.600   662.300   638.500   675.900   637.300   684.900   631.800   695.300   630.400   697.000
R    629.900   703.400   630.900   709.400   631.800   712.100   637.600   722.200   638.100   761.100
R    637.900   833.000   638.200   852.900   638.300   869.100   638.300   924.900   638.800   999.900

H      5.000    10.000  5940.000      .035  5944.900      .065  5976.100      .035  6020.000    10.000
H   6577.600      .000      .000      .000      .000      .000      .000      .000      .000      .000
1  28145.000    21.000  5944.900  5976.100   450.000   455.000   450.000      .000      .000      .000
4      2.000   637.500  5940.000   637.800  6020.000      .000      .000      .000      .000      .000
GR   640.000  4143.200   640.000  4143.300   640.000  4143.400   640.000  4143.500   640.000  4143.600
GR   637.800  5743.200   637.700  5814.700   637.700  5888.100   637.500  5944.900   631.800  5951.800
GR   631.300  5955.100   630.700  5958.900   630.900  5962.800   631.800  5967.800   637.100  5976.100
GR   638.000  6000.000   637.500  6040.700   637.800  6070.800   638.000  6100.900   638.000  6157.600
GR   640.000  6577.600      .000      .000      .000      .000      .000      .000      .000      .000

NC      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
X1 28190.000      .000      .000      .000    45.000    45.000    45.000      .000      .200      .000

NC      .040      .040      .070      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   880.000  1020.000
     S-170**HIRSCH STREET**SS 91+40.11
X1 28290.000    25.000   934.000   991.900   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   637.000   637.000      .000
GR   637.900   697.500   637.200   781.900   638.000   884.100   638.600   934.000   639.400   934.000
GR   639.300   935.900   636.000   936.200   633.700   936.300   632.000   943.800   631.400   947.100
GR   630.200   952.100   629.900   957.900   631.000   965.200   632.100   970.300   633.900   977.100
GR   634.700   988.100   636.000   988.200   639.300   989.000   639.500   991.900   638.700   992.000
GR   638.700  1000.200   638.100  1027.000   638.100  1098.100   638.100  1174.000   638.600  1249.000

SB      .900     1.600     2.600      .000    12.000      .010   197.000     3.330      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   880.000  1020.000
X1 28340.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   636.000   637.900      :000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   637.900   637.900      .000
BT    -7.000   697.500   637.900      .000   800.800   637.900      .000   928.000   638.900      .000
BT      .000   985.000   639.100      .000  1055.000   638.600      .000  1158.000   638.300      .000
BT      .000  1279.000   639.200      .000      .000      .000      .000      .000      .000      .000
```

```
X1  28390.000     14.000    938.000    975.000     50.000     50.000     50.000       .000      -.900       .000
X3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
X4      2.000    640.000    660.000    640.000   2500.000       .000       .000       .000       .000       .000
GR    635.800    834.000    635.200    882.000    637.500    926.000    636.500    938.000    632.000    949.000
GR    630.800    952.000    629.400    956.000    629.200    963.000    630.800    967.000    632.000    970.000
GR    635.800    975.000    635.900   1000.000    636.400   1025.000    636.700   1042.000       .000       .000

NC       .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
X1  28585.000       .000       .000       .000    195.000    195.000    195.000       .000       .900       .000
X3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000

NH      5.000     10.000    900.000       .040    923.000       .070    963.300       .040   1050.000     10.000
NH   1318.400       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1  28825.000     19.000    923.000    963.300    240.000    240.000    240.000       .000       .000       .000
X4      2.000    638.600    900.000    638.250   1050.000       .000       .000       .000       .000       .000
GR    639.600    716.100    638.700    805.800    638.600    909.000    638.200    918.900    637.700    923.000
GR    637.300    924.300    632.100    933.500    631.600    937.200    631.400    942.400    631.400    947.200
GR    632.100    950.300    634.600    954.300    637.900    963.300    638.300    970.300    638.400    981.400
GR    638.500   1000.000    638.200   1052.000    638.200   1158.200    639.500   1318.400       .000       .000

NC       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
X1  29100.000       .000       .000       .000    275.000    275.000    275.000       .000       .600       .000

NC       .040       .040       .070       .000       .000       .000       .000       .000       .000       .000
ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    875.000    970.000
         S-175**LEMOYNE STREET**SS 82+33.11
X1  29200.000     27.000    885.300    945.200    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    637.500    637.500       .000
GR    638.600    648.900    637.800    732.900    638.400    815.200    638.800    885.300    639.500    885.400
GR    639.500    886.200    636.700    886.600    636.600    887.900    635.400    889.000    635.400    897.100
GR    632.100    906.100    631.600    913.200    631.300    919.100    631.500    926.000    632.200    929.000
GR    634.400    933.000    634.900    942.000    636.600    942.100    636.600    944.100    639.000    944.100
GR    639.000    945.200    638.800    945.200    638.300    968.000    638.200    999.900    638.700   1083.000
GR    639.500   1189.000    639.400   1286.100       .000       .000       .000       .000       .000       .000

SB       .900      1.600      2.600       .000     18.000       .010    187.000      3.400       .000       .000
ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    875.000    970.000
X1  29250.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2       .000       .000      1.000    636.600    638.400       .000       .000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    638.400    638.400       .000
BT     -9.000    648.900    638.600       .000    732.000    638.500       .000    812.000    638.600       .000
BT       .000    877.000    639.500       .000    934.000    639.400       .000   1022.000    638.400       .000
BT       .000   1088.000    639.000       .000   1163.000    639.500       .000   1286.100    639.400       .000

NH      5.000     10.000    930.000       .040    945.300       .070    985.300       .040   1020.000     10.000
NH   1966.400       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1  29300.000     27.000    945.300    985.300     50.000     50.000     50.000       .000      -.500       .000
X4      2.000    639.200    930.000    638.000   1020.000       .000       .000       .000       .000       .000
GR    640.200    169.000    640.200    169.100    640.200    169.200    640.200    169.300    640.200    169.400
GR    639.600    794.300    639.300    843.400    639.200    888.200    639.200    931.300    638.400    942.400
GR    638.100    945.300    633.800    956.300    633.100    956.400    632.100    956.500    632.200    961.400
GR    632.300    965.200    632.200    969.300    632.400    974.800    632.300    977.300    638.200    985.300
GR    638.100    991.300    638.100   1000.100    638.100   1004.100    638.000   1052.400    638.100   1139.200
```

```
    638.000   1236.400    640.200   1966.400       .000       .000       .000       .000       .000       .000

:      .040       .040       .040       .100       .300       .000       .000       .000       .000       .000
.  29550.000       .000       .000       .000    250.000    250.000    250.000       .000       .500       .000

|      5.000     10.000    930.000       .040    945.000       .040    985.200       .040   1020.000     10.000
|   1966.400       .000       .000       .000       .000       .000       .000       .000       .000       .000
.  29555.000     27.000    945.000    985.200      5.000      5.000      5.000       .000       .000       .000
|      2.000    639.200    930.000    638.000   1020.000       .000       .000       .000       .000       .000
R    640.000    169.000    640.000    169.100    640.000    169.200    640.000    169.300    640.000    169.400
R    639.600    794.200    639.300    843.000    639.200    888.100    639.200    931.100    638.400    942.100
R    638.100    945.000    633.900    955.900    632.700    955.900    632.800    960.800    632.700    964.800
R    633.000    968.900    632.700    974.400    632.700    976.000    633.100    977.200    638.200    985.200
R    638.200    991.000    638.100    999.900    638.100   1004.100    638.000   1052.000    638.100   1138.600
R    638.100   1236.400    640.000   1966.400       .000       .000       .000       .000       .000       .000

C       .040       .040       .015       .000       .000       .000       .000       .000       .000       .000
T      6.000    322.000    426.000    492.000    714.000    914.000   1119.000       .000       .000       .000
1  29760.000     22.000    950.100    992.400    185.000    215.000    205.000       .000       .000       .000
3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
R    642.900    931.100    641.800    949.900    642.200    950.100    642.200    951.100    638.100    952.400
R    633.700    962.100    633.500    962.100    631.500    962.200    631.500    967.300    631.800    972.200
R    631.700    977.200    632.000    982.200    633.400    982.200    633.600    982.300    637.900    992.300
R    642.000    992.400    642.000    993.600    639.700    993.700    639.700   1000.200    639.800   1010.300
R    639.800   1036.300    640.300   1069.300       .000       .000       .000       .000       .000       .000

C       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
(1  29800.000       .000       .000       .000     40.000     40.000     40.000       .000       .000       .000
(3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000

IC      .030       .030       .015       .000       .000       .000       .000       .000       .000       .000
     S-185**NORTH AVENUE**SS 74+19.42
(1  29900.000     22.000    952.100    984.000    100.000    100.000    100.000       .000       .000       .000
(3     10.000       .000       .000       .000       .000       .000       .000    639.000    639.000       .000
GR   640.400    763.300    640.300    829.900    641.000    896.300    640.400    943.000    639.600    945.700
GR   634.100    952.100    633.300    954.000    632.800    955.100    632.200    957.800    632.000    961.800
GR   631.500    963.000    630.600    968.000    630.900    973.200    630.900    974.000    632.900    984.000
GR   633.400    986.900    639.700    987.100    640.200    988.000    640.600   1000.000    640.600   1015.100
GR   640.600   1044.000    640.500   1073.900       .000       .000       .000       .000       .000       .000

SB     1.250      1.600      2.600       .000     32.000      2.000    180.000       .000    631.800    631.800
X1 30060.000       .000       .000       .000    160.000    160.000    160.000       .000       .000       .000
X2      .000       .000      1.000    637.800    640.200       .000       .000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    640.200    640.200       .000
BT   -10.000    763.300    640.400       .000    829.900    640.300       .000    896.300    641.000       .000
BT      .000    943.000    640.400       .000    988.000    640.200       .000   1000.000    640.600       .000
BT      .000   1015.100    640.600       .000   1044.000    640.600       .000   1073.900    640.500       .000
BT      .000   1195.000    640.200       .000       .000       .000       .000       .000       .000       .000
```

```
NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
X1 30225.000      .000      .000      .000   165.000   165.000   165.000      .000      .200      .000

NC      .035      .035      .030      .000      .000      .000      .000      .000      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   763.100  1150.000
        S-190**PARKVIEW AVENUE**SS 71+15.97
X1 30325.000    27.000   944.000   993.900   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   638.300   638.300      .000
GR   639.800   763.100   639.800   784.100   639.700   841.100   641.500   934.700   641.500   936.600
GR   641.500   936.800   641.500   938.200   640.100   938.300   638.900   943.800   638.000   944.000
GR   634.200   952.900   633.200   958.300   632.900   963.200   633.200   967.800   633.600   974.900
GR   634.200   983.700   636.100   987.300   636.700   993.800   638.200   993.900   638.200   994.900
GR   641.500   995.000   641.500   996.400   641.500   996.900   640.600  1000.200   640.900  1088.000
GR   640.400  1172.300   640.300  1269.000      .000      .000      .000      .000      .000      .000

SB      .900     1.600     2.600      .000    22.000      .010   190.000     2.640      .000      .000
ET      .000     9.110     9.110     9.110     9.110     9.110     9.110     9.110   763.100  1150.000
X1 30375.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   638.200   639.600      .000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   639.700   639.700      .000
BT   -27.000   763.100   639.800   639.800   784.100   639.800   639.800   841.100   639.600   639.600
BT      .000   934.700   641.500   641.500   936.600   641.500   641.500   936.800   641.500   641.500
BT      .000   938.200   641.500   641.500   938.300   641.500   640.100   943.800   641.500   638.900
BT      .000   944.000   641.500   638.000   952.900   641.500   638.000   958.300   641.500   638.000
BT      .000   963.200   641.500   638.000   967.800   641.500   638.100   974.900   641.500   638.100
BT      .000   983.700   641.500   638.100   987.300   641.500   638.100   993.800   641.500   638.200
BT      .000   993.900   641.500   638.200   994.900   641.500   638.200   995.000   641.500   641.500
BT      .000   996.400   641.500   641.500   996.900   641.500   641.500  1000.200   640.600   640.800
BT      .000  1088.000   640.900   640.900  1172.300   640.400   640.400  1269.000   640.300   640.300

NH     5.000    10.000   900.000      .035   965.800      .030  1008.100      .035  1060.000    10.000
NH  1134.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 30425.000    21.000   965.800  1008.100    50.000    50.000    50.000      .000     -.200      .000
X4     2.000   638.000   900.000   638.900  1060.000      .000      .000      .000      .000      .000
GR   642.000   152.100   642.000   152.200   642.000   152.300   642.000   152.400   642.000   152.500
GR   638.200   792.100   638.100   807.200   638.900   832.000   638.000   909.000   636.800   965.800
GR   633.400   977.000   632.100   981.000   631.100   985.800   632.200   991.800   633.200   994.400
GR   635.800   996.100   636.100   999.700   638.100  1008.100   638.700  1027.000   638.700  1051.800
GR   640.400  1134.000      .000      .000      .000      .000      .000      .000      .000      .000

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1 30595.000      .000      .000      .000   190.000   150.000   170.000      .000      .200      .000

NH     5.000    10.000   916.100      .035   945.800      .030   992.100      .035  1050.000    10.000
NH  1083.200      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 30775.000    21.000   945.800   992.100   185.000   170.000   180.000      .000      .000      .000
X4     1.000   639.750  1050.000      .000      .000      .000      .000      .000      .000      .000
GR   642.000   624.300   642.000   624.400   642.000   624.500   642.000   624.600   642.000   624.700
GR   639.600   844.300   639.300   888.100   639.000   916.100   638.100   945.800   637.000   956.000
GR   633.300   960.300   632.400   965.300   631.700   972.000   632.300   977.200   633.300   979.000
GR   635.100   979.800   637.800   992.100   638.100  1000.100   639.000  1010.000   639.600  1045.200
GR   640.100  1083.200      .000      .000      .000      .000      .000      .000      .000      .000
```

```
C       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
1  30935.000       .000       .000       .000    160.000    160.000    160.000       .000       .100       .000

C       .035       .035       .030       .000       .000       .000       .000       .000       .000       .000
     S-195**ROBERTA AVENUE**SS 63+73.54
1  31035.000     30.000    955.800    994.900    100.000    100.000    100.000       .000       .000       .000
3     10.000       .000       .000       .000       .000       .000       .000    641.000    641.000       .000
R    640.200    781.800    641.200    846.700    640.800    891.900    641.200    932.700    640.900    954.600
R    641.800    955.800    641.800    956.900    640.100    957.000    636.000    957.100    634.500    962.000
R    634.000    962.800    633.200    967.800    633.300    971.000    634.500    974.500    634.500    976.000
R    633.100    979.700    633.000    983.200    633.300    987.000    634.500    989.000    635.700    992.900
R    640.100    993.700    641.800    993.700    641.900    994.900    641.400    995.700    640.000   1000.000
R    641.100   1035.600    640.800   1087.600    640.800   1135.800    640.400   1202.700    640.700   1222.600

B      1.250      1.600      2.600       .000     36.000      1.000    210.000       .000    634.200    634.200
1  31085.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
2       .000       .000      1.000    640.200    641.000       .000       .000       .000       .000       .000
3     10.000       .000       .000       .000       .000       .000       .000    641.900    641.000       .000
T    -11.000    825.000    641.600       .000    872.000    641.800       .000    917.000    641.900       .000
T       .000    955.800    641.800       .000    956.900    641.800       .000    993.700    641.800       .000
T       .000    994.900    641.900       .000   1036.000    641.800       .000   1088.000    641.500       .000
T       .000   1148.000    641.000       .000   1220.000    641.000       .000       .000       .000       .000

NH     5.000     10.000    939.000       .035    959.800       .030    992.200       .035   1070.000     10.000
NH  1642.800       .000       .000       .000       .000       .000       .000       .000       .000       .000
X1 31135.000     23.000    959.800    992.200     50.000     50.000     50.000       .000      -.100       .000
X4     1.000    638.250   1070.000       .000       .000       .000       .000       .000       .000       .000
GR   642.000    609.000    642.000    609.100    642.000    609.200    642.000    609.300    642.000    609.400
GR   638.800    939.000    638.800    953.800    638.300    959.800    637.100    965.000    633.500    969.000
GR   632.200    973.100    632.200    978.100    632.200    982.600    633.400    988.000    635.900    992.200
GR   637.800   1000.200    637.700   1015.800    638.100   1062.200    638.400   1108.900    638.800   1144.100
GR   639.200   1188.000    639.300   1222.800    642.000   1642.800       .000       .000       .000       .000

X1 31345.000       .000       .000       .000    210.000    210.000    210.000       .000       .100       .000

X1 31615.000       .000       .000       .000    270.000    270.000    270.000       .000       .100       .000

NC      .035       .035       .030       .000       .000       .000       .000       .000       .000       .000
     S-200**ROY AVENUE**SS 55+57.46
X1 31715.000     22.000    940.900    990.600    100.000    100.000    100.000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    640.200    640.200       .000
GR   640.500    803.800    641.800    874.500    641.900    937.500    639.600    938.600    639.700    940.900
GR   636.900    941.700    635.500    950.600    633.700    952.800    633.100    955.600    633.000    959.600
GR   632.500    966.700    632.500    971.600    633.600    975.700    637.300    981.600    639.600    990.600
GR   639.600    992.500    642.200    992.600    642.200    993.500    642.500    993.500    642.600    999.700
GR   641.800   1033.600    641.000   1087.400       .000       .000       .000       .000       .000       .000

SB      .900      1.600      2.600       .000     20.000       .010    248.000      2.300       .000       .000
X1 31765.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
X2      .000       .000      1.000    639.800    640.500       .000       .000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    641.200    640.500       .000
BT    -7.000    769.000    641.200       .000    851.000    641.800       .000    936.000    642.400       .000
BT      .000    979.000    642.300       .000   1057.000    641.800       .000   1146.000    641.000       .000
```

```
8T      .000  1236.000   640.500      .000      .000      .000      .000      .000      .000      .000

NH     5.000    10.000   735.900      .035   780.600      .030   828.700      .035   878.700    10.000
NH  1244.700      .000      .000      .000      .000      .000      .000      .000      .000      .000
X1 31815.000    25.000   780.600   828.700    50.000    50.000    50.000      .000     -.100      .000
GR   642.000   225.900   642.000   226.000   642.000   226.100   642.000   226.200   642.000   226.300
GR   639.500   735.900   638.400   780.600   635.800   791.800   633.600   793.000   633.100   794.700
GR   632.200   797.000   632.200   804.000   632.600   809.800   633.700   812.700   637.100   816.900
GR   640.200   828.700   640.300   834.000   640.500   878.700   641.100   935.600   641.200  1000.200
GR   641.400  1003.200   640.800  1014.800   640.800  1043.800   639.300  1094.700   642.000  1244.700

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1 31985.000      .000      .000      .000   170.000   170.000   170.000      .000      .100      .000

NC      .035      .035      .030      .000      .000      .000      .000      .000      .000      .000
X1 32300.000    18.000   844.800   883.900   315.000   315.000   315.000      .000      .000      .000
GR   641.100   804.300   639.200   844.800   637.300   856.800   634.600   859.600   633.800   863.100
GR   633.300   869.600   633.600   873.900   634.700   877.600   634.900   877.600   639.400   883.900
GR   640.800   887.100   642.200   887.200   643.600   944.800   642.700  1000.000   643.200  1014.100
GR   642.800  1022.800   642.700  1051.900   643.700  1089.800      .000      .000      .000      .000

NC      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
X1 32590.000      .000      .000      .000   290.000   290.000   290.000      .000      .200      .000

         S-205**PRATER AVENUE**SS 46+19.78
X1 32690.000    30.000   930.900   981.600   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   641.500   641.500      .000
GR   642.100   885.900   643.200   920.900   643.600   927.800   643.800   928.900   643.800   929.700
GR   640.800   929.800   640.800   930.900   638.700   932.200   637.600   938.000   634.800   944.200
GR   634.300   946.200   634.600   951.900   634.000   959.100   634.400   966.200   634.900   971.100
GR   636.800   975.900   637.200   981.400   640.400   981.600   640.900   981.600   640.900   982.900
GR   643.300   983.000   643.300   983.700   643.300   984.700   643.000   999.500   642.600  1015.600
GR   642.200  1016.900   641.800  1048.900   641.500  1070.700   641.900  1070.800   643.200  1137.700

S8      .900     1.600     2.600      .000    31.500      .010   288.000     1.600      .000      .000
X1 32740.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000
X2      .000      .000     1.000   640.800   642.200      .000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   642.200   642.200      .000
8T    -7.000   761.000   642.200      .000   852.000   642.200      .000   929.000   643.800      .000
8T      .000   973.000   643.800      .000  1023.000   643.100      .000  1054.000   642.200      .000
8T      .000  1137.700   643.200      .000      .000      .000      .000      .000      .000      .000

X1 32790.000    19.000   959.900  1003.500    50.000    50.000    50.000      .000     -.100      .000
GR   642.100   888.100   641.200   929.000   640.800   955.000   640.300   959.900   637.700   966.200
GR   634.400   969.900   633.600   971.000   633.000   978.400   633.100   983.200   633.800   987.100
GR   634.400   987.200   636.300   988.200   640.900  1000.000   641.300  1003.500   641.500  1009.100
GR   641.500  1032.900   641.900  1034.400   642.100  1041.200   642.700  1071.000      .000      .000

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
QT     6.000   315.000   415.000   480.000   692.000   886.000  1076.000      .000      .000      .000
```

```
   33000.000       .000       .000       .000    210.000    210.000    210.000       .000       .100       .000

   33170.000     24.000    864.800    926.600    135.000    195.000    170.000       .000       .000       .000
     641.900    743.300    641.600    780.000    640.800    812.900    641.100    829.800    641.100    846.000
     641.000    864.800    635.000    894.800    634.300    895.800    634.000    895.800    633.600    898.000
     632.700    902.900    632.300    904.600    632.300    907.700    634.300    907.700    635.800    908.700
     641.100    926.600    641.600    938.000    641.500    954.600    641.800    973.000    641.200    988.800
     641.800    988.800    641.700    999.800    641.800   1035.000    642.400   1090.000       .000       .000

       5.000     10.000    871.100       .035    956.100       .030    997.800       .035   1072.900     10.000
    1322.900       .000       .000       .000       .000       .000       .000       .000       .000       .000
 1 33410.000     22.000    956.100    997.800    200.000    265.000    240.000       .000       .000       .000
 R   642.000    621.100    642.000    621.200    642.000    621.300    642.000    621.400    642.000    621.500
 R   640.900    871.100    641.200    912.000    641.200    939.000    640.300    956.100    634.600    963.400
 R   633.600    967.300    633.400    970.100    633.400    976.000    634.600    979.000    635.300    980.300
 R   639.700    996.600    640.200    997.800    640.400   1000.100    641.000   1014.000    640.800   1041.600
 R   641.000   1072.900    642.000   1322.900       .000       .000       .000       .000       .000       .000

 C      .035       .035       .030       .000       .000       .000       .000       .000       .000       .000
 1 33710.000     18.000    937.800    983.100    335.000    265.000    300.000       .000       .000       .000
 R   642.100    850.900    641.000    908.100    641.000    933.900    641.000    937.800    636.600    951.900
 R   634.500    954.100    634.000    955.300    633.500    958.000    633.400    961.900    633.200    967.300
 R   634.000    972.100    634.500    973.000    637.200    974.000    640.400    983.100    641.500    999.900
 R   641.900   1003.300    641.900   1029.000    642.800   1074.000       .000       .000       .000       .000

 1 33875.000     17.000    949.500    997.200    120.000    220.000    165.000       .000       .000       .000
 R   643.400    919.300    643.300    944.400    642.800    949.500    637.700    963.300    635.600    964.100
 R   635.200    964.400    634.300    967.200    634.100    971.100    634.400    975.100    635.200    980.000
 R   635.600    980.200    636.400    981.200    641.900    997.200    641.900   1000.000    643.200   1008.300
 R   644.600   1114.000    644.500   1138.000       .000       .000       .000       .000       .000       .000

 C      .035       .035       .040       .300       .500       .000       .000       .000       .000       .000
 1 34115.000       .000       .000       .000    240.000    240.000    240.000       .000       .960       .000

       S-210**WOLF ROAD**SS 30+29.27
 1 34215.000     16.000    934.200    978.100    100.000    100.000    100.000       .000       .000       .000
 3    10.000       .000       .000       .000       .000       .000       .000    645.750    645.750       .000
 R   646.500    884.000    646.100    914.000    644.600    934.200    636.800    934.300    636.500    934.400
 R   636.500    948.000    636.500    950.000    636.500    963.200    636.600    966.300    636.600    977.900
 R   636.800    978.000    644.500    978.100    646.000    991.900    646.500   1000.000    646.800   1046.900
 R   646.800   1046.900       .000       .000       .000       .000       .000       .000       .000       .000

 B     1.250      1.600      2.600       .000     44.000      2.500    332.000       .000       .000       .000
 1 34265.000       .000       .000       .000     50.000     50.000     50.000       .000       .000       .000
 2      .000       .000      1.000    644.500    647.000       .000       .000       .000       .000       .000
 3    10.000       .000       .000       .000       .000       .000       .000    647.000    647.000       .000

 C      .030       .030       .030       .000       .000       .000       .000       .000       .000       .000
       S-215**CONCRETE DAM**SS 28+07.00
 1 34390.000     14.000    855.000    934.000    125.000    125.000    125.000       .000       .000       .000
 R   646.000    815.000    646.600    837.100    646.000    855.000    644.500    864.900    636.900    879.000
 R   636.300    910.000    636.200    924.000    636.900    927.000    643.500    934.000    645.500    938.000
 R   645.400    946.900    646.600    959.000    649.600   1000.000    650.000   1035.900       .000       .000
```

```
X1  34400.000     19.000    865.900     946.900     10.000     10.000     10.000       .000       .000       .000
GR    646.000    815.000    646.600     837.100    646.000    855.000    644.500    864.900    645.200    865.900
GR    645.200    896.900    643.300     899.000    643.300    903.200    640.100    907.000    641.200    910.100
GR    641.200    924.000    640.100     926.100    643.400    929.200    643.500    933.900    645.500    938.200
GR    645.400    946.900    646.600     959.000    649.600   1000.000    650.000   1035.900       .000       .000

X1  34410.000     16.000    810.100     929.200     10.000     10.000     10.000       .000      -.200       .000
GR    645.700    784.100    646.100     799.200    645.400    810.100    641.400    818.800    640.600    820.100
GR    639.700    821.200    636.200     842.300    635.900    865.000    636.300    890.200    637.400    908.100
GR    640.700    917.900    645.800     929.200    646.800    955.200    647.700    999.800    648.000   1047.000
GR    648.000   1096.700       .000        .000       .000       .000       .000       .000       .000       .000

X1  34650.000       .000       .000        .000    240.000    240.000    240.000       .000       .200       .000

NC       .000       .000       .000        .300       .500       .000       .000       .000       .000       .000
X1  34800.000       .000       .000        .000    150.000    150.000    150.000       .000       .300       .000

       S-220**WHITEHALL AVENUE**SS 22+46.30
X1  34900.000     21.000    798.400     827.700    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000        .000       .000       .000       .000    645.700    645.700       .000
GR    646.400    734.600    646.800     770.300    646.700    795.400    648.500    795.600    648.500    797.200
GR    644.800    797.500    640.800     798.300    635.300    798.400    634.600    806.300    634.500    813.300
GR    634.700    821.500    635.400     827.500    640.800    827.600    644.800    827.700    648.400    827.800
GR    648.400    829.300    647.000     830.200    647.600    873.500    647.800    917.400    648.000    958.100
GR    648.800   1000.100       .000        .000       .000       .000       .000       .000       .000       .000

SB       .900      1.600      2.600        .000     29.000       .010    290.000       .000       .000       .000
X1  34950.000       .000       .000        .000     50.000     50.000     50.000       .000       .000       .000
X2       .000       .000      1.000     645.000    646.400       .000       .000       .000       .000       .000
X3     10.000       .000       .000        .000       .000       .000       .000    646.400    648.000       .000
BT     -7.000    734.600    646.400        .000    794.000    648.000       .000    828.000    648.000       .000
BT       .000    881.000    648.600        .000    932.000    648.900       .000   1040.000    649.500       .000
BT       .000   1136.000    649.800        .000       .000       .000       .000       .000       .000       .000

X1  35000.000     24.000    843.900     939.100     50.000     50.000     50.000       .000      -.300       .000
X3     10.000       .000       .000        .000       .000       .000       .000       .000       .000       .000
GR    647.000    684.200    647.100     714.300    648.000    745.200    640.900    758.100    638.100    766.700
GR    636.400    775.100    636.800     786.300    637.200    800.100    640.800    807.300    645.400    816.300
GR    644.800    831.200    643.800     843.900    640.800    850.100    639.000    855.300    636.100    879.100
GR    635.200    894.000    635.600     909.800    638.900    929.000    640.900    932.900    646.200    939.100
GR    646.600    969.100    646.900    1000.100    647.500   1041.000    648.000   1093.000       .000       .000

X1  35140.000       .000       .000        .000    140.000    140.000    140.000       .000       .300       .000

X1  35510.000     18.000    822.000     907.000    380.000    360.000    370.000       .000       .000       .000
GR    646.200    753.400    645.600     785.500    644.500    822.000    640.800    843.000    639.400    848.300
GR    638.300    854.200    637.300     865.200    637.400    883.800    637.400    883.800    640.100    900.700
GR    640.800    903.100    643.600     907.000    643.800    932.100    644.100    967.300    644.600    999.800
GR    645.500   1041.900    645.800    1091.700    646.100   1142.300       .000       .000       .000       .000
```

```
   35620.000      .000      .000      .000   110.000   110.000   110.000      .000      .400      .000
      10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000

        .030      .030      .035      .000      .000      .000      .000      .000      .000      .000
      S-225**INDUSTRIAL ACCESS ROAD**SS 15+03.28
   35720.000    18.000   930.900   959.900   100.000   100.000   100.000      .000      .000      .000
      10.000      .000      .000      .000      .000      .000      .000   647.000   647.000      .000
     648.800   863.900   648.400   900.900   647.900   928.000   648.900   928.800   648.900   930.000
     645.300   930.900   640.700   931.100   636.800   931.200   636.100   935.900   636.100   944.000
     636.100   952.900   636.900   959.800   640.800   959.900   645.300   959.900   649.000   960.700
     649.000   962.900   648.000   962.900   648.500   999.800      .000      .000      .000      .000

        .900     1.600     2.600      .000    29.000      .010   264.000      .000      .000      .000
1  35760.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000
2       .000      .000     1.000   645.400   648.500      .000      .000      .000      .000      .000
3     10.000      .000      .000      .000      .000      .000      .000   648.500   648.500      .000
T     -4.000   863.900   649.400      .000   927.000   648.500      .000   960.000   648.500      .000
T       .000   999.800   648.800      .000      .000      .000      .000      .000      .000      .000

1  35800.000    18.000   826.600   998.000    40.000    40.000    40.000      .000    -1.100      .000
3     10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
R    646.900   755.200   646.700   799.400   648.800   810.700   648.600   826.600   640.800   844.900
R    638.700   847.000   637.200   861.200   637.400   882.000   636.900   907.100   636.100   925.700
R    636.200   943.900   635.100   961.100   636.100   976.600   640.800   989.200   646.200   998.000
R    646.200   999.600   648.200  1048.100   649.100  1094.500      .000      .000      .000      .000

C       .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
1  36100.000      .000      .000      .000   300.000   300.000   300.000      .000     1.100      .000
3     10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000

1  36250.000    27.000   713.000   937.000   150.000   150.000   150.000      .000      .000      .000
3     10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
R    649.100   538.000   650.700   589.000   650.800   657.000   646.200   670.000   645.200   686.000
R    649.200   701.000   649.700   713.000   640.300   724.000   637.800   729.000   636.500   744.000
R    636.800   758.000   636.300   773.000   636.800   788.000   637.500   823.000   637.000   852.000
R    635.800   875.000   637.200   899.000   640.800   918.000   642.500   920.000   644.500   926.000
R    647.900   937.000   649.400   961.000   650.200   972.000   651.400  1000.000   652.400  1012.000
R    652.400  1022.000   652.400  1033.000      .000      .000      .000      .000      .000      .000

      S-226**CONCRETE DAM:CONSTRUCTED FROM TOPO**
1  36315.000     9.000   687.900   760.400    65.000    65.000    65.000      .000      .000      .000
R    647.400   687.900   644.400   696.900   640.500   704.300   638.100   735.100   638.100   747.900
R    640.600   754.300   644.100   760.400   646.200   770.000   650.200   784.100      .000      .000

1  36316.000    15.000   687.800   758.100     1.000     1.000     1.000      .000      .000      .000
R    647.500   687.800   644.400   696.900   644.900   696.900   644.900   722.200   643.000   727.100
R    643.000   734.200   640.800   735.000   640.800   742.100   641.100   749.100   642.900   749.900
R    645.000   753.000   645.000   758.100   644.100   760.000   646.200   770.100   650.200   784.000
```

```
X1  36585.000     28.000    607.100    929.200    269.000    269.000    269.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR    645.800    515.400    646.200    550.200    646.200    587.100    646.200    601.200    648.200    605.100
GR    648.600    607.100    645.400    613.300    645.000    615.100    641.400    622.000    638.000    633.100
GR    637.400    651.400    636.100    673.200    635.500    715.000    634.100    756.200    633.000    804.200
GR    633.000    837.300    633.600    865.300    636.900    898.300    640.200    912.400    641.500    917.100
GR    646.300    929.200    648.700    970.000    649.800    999.900    649.600   1028.000    650.600   1044.100
GR    651.700   1068.000    651.700   1079.300    651.700   1088.700       .000       .000       .000       .000

X1  36895.000     23.000    577.600    742.100    310.000    310.000    310.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR    646.100    505.900    646.000    524.800    646.500    552.000    646.800    561.600    648.300    564.900
GR    648.800    577.600    644.600    594.000    643.300    602.600    641.500    607.000    640.100    623.000
GR    639.500    636.800    639.200    653.900    640.000    679.100    640.300    702.000    640.100    717.000
GR    640.500    731.000    641.400    741.100    642.500    742.100    647.200    777.200    648.900    832.200
GR    649.800    887.900    650.200    946.100    649.800    999.800       .000       .000       .000       .000

X1  37205.000     17.000    787.300    912.000    330.000    290.000    310.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000       .000       .000       .000
GR    646.900    687.700    647.500    706.100    647.700    723.100    647.800    735.000    651.800    756.000
GR    651.500    787.300    643.200    822.000    641.900    828.300    641.500    833.200    640.800    836.100
GR    639.100    843.100    639.600    854.100    641.000    864.200    641.500    867.100    644.300    872.200
GR    648.600    912.000    649.800    999.900       .000       .000       .000       .000       .000       .000

NC       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
X1  37245.000       .000       .000       .000     20.000     60.000     40.000       .000       .000       .000

        S-230**PALMER AVENUE**SS 0+00
X1  37345.000     26.000    927.200    957.200    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    645.700    645.700       .000
GR    645.800    741.000    646.100    772.000    646.900    828.100    647.900    893.100    647.900    910.200
GR    647.400    925.000    648.900    925.100    648.800    927.200    645.400    927.300    641.600    927.400
GR    637.600    927.800    636.300    937.900    636.300    944.700    639.000    954.700    641.500    956.100
GR    645.400    957.000    647.400    957.200    648.000    957.200    648.000    959.300    648.000    959.400
GR    647.800    974.900    648.000   1000.500    648.600   1037.000    648.800   1129.000    648.700   1226.100
GR    649.000   1313.100       .000       .000       .000       .000       .000       .000       .000       .000

SB       .900      1.600      2.600       .000     29.000       .010    246.000       .000       .000       .000
X1  37385.000       .000       .000       .000     40.000     40.000     40.000       .000       .000       .000
X2       .000       .000      1.000    645.500    645.800       .000       .000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    645.800    648.700       .000
BT     -7.000    741.000    645.800       .000    893.000    647.900       .000    922.500    648.200       .000
BT       .000    955.000    648.200       .000   1037.000    648.700       .000   1129.000    649.000       .000
BT       .000   1313.000    649.400       .000       .000       .000       .000       .000       .000       .000

X1  37425.000     16.000    917.900    953.000     40.000     40.000     40.000       .000      -.300       .000
GR    646.100    822.800    646.000    872.900    645.500    914.700    644.800    917.900    641.800    925.900
GR    640.400    927.000    639.800    934.000    639.600    942.000    641.800    947.100    645.100    953.000
GR    646.600    975.000    646.900   1000.400    647.400   1027.200    647.900   1050.000    648.000   1097.900
GR    648.100   1137.800       .000       .000       .000       .000       .000       .000       .000       .000
```

```
     .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
 37695.000      .000      .000      .000   270.000   270.000   270.000      .000      .300      .000

     .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
    6.000   290.000   365.000   408.000   493.000   525.000  1063.000      .000      .000      .000
 38025.000    23.000   932.600   969.700   345.000   300.000   330.000      .000      .000      .000
     .000      .000      .000   900.000      .000      .000      .000      .000      .000      .000
  649.000   743.000   648.500   752.900   647.400   793.800   646.700   829.800   646.100   854.700
  646.000   871.800   645.800   892.600   645.900   912.500   645.300   932.600   641.500   938.600
  640.500   939.900   639.500   945.900   640.300   954.600   641.500   956.800   649.300   969.700
  650.300   980.000   650.700   999.700   651.800  1041.700   652.500  1071.800   652.400  1107.600
  651.800  1146.300   650.800  1184.300   650.100  1219.800      .000      .000      .000      .000

 38325.000    20.000   944.000   986.200   300.000   300.000   300.000      .000      .000      .000
   10.000      .000      .000   890.000      .000      .000      .000      .000      .000      .000
  646.400   773.000   646.400   783.200   645.900   800.200   646.300   841.100   646.000   872.900
  645.800   908.300   645.600   934.900   645.100   944.000   641.500   950.700   641.100   952.800
  640.700   958.900   641.000   967.800   641.500   968.800   648.100   980.100   650.000   986.200
  650.800  1000.100   651.100  1016.100   650.400  1030.300   649.600  1042.000   646.800  1047.000

1 38625.000    19.000   968.900   998.200   270.000   320.000   300.000      .000      .000      .000
     .000      .000      .000   920.000      .000      .000      .000      .000      .000      .000
R  647.000   862.200   646.600   892.900   646.200   922.200   645.900   958.000   645.200   968.900
R  641.500   972.800   640.700   974.900   640.100   982.900   640.700   990.100   641.500   992.100
R  645.100   998.200   645.000  1000.200   645.900  1009.000   647.500  1013.200   647.400  1015.900
R  647.800  1028.100   648.800  1046.000   649.200  1078.300   649.500  1112.100      .000      .000

1 38935.000    19.000  1008.100  1045.100   335.000   265.000   310.000      .000      .000      .000
R  648.800   870.100   648.000   900.200   648.200   938.300   649.000   951.200   648.800   976.900
R  648.900   988.000   648.600   998.000   648.600  1000.100   648.900  1008.100   642.700  1019.100
R  641.900  1022.200   641.100  1023.100   641.400  1029.900   641.500  1036.200   641.900  1037.200
R  645.800  1045.100   645.500  1080.100   646.900  1102.900   649.000  1126.300      .000      .000

1 39235.000    19.000  1006.100  1048.100   300.000   300.000   300.000      .000      .000      .000
R  650.300   892.900   649.400   925.100   648.900   955.100   649.000   974.200   648.700   985.100
R  648.500   995.100   648.800  1000.300   648.800  1006.100   646.100  1014.100   642.100  1023.000
R  641.100  1024.900   640.900  1036.900   641.200  1040.900   642.200  1042.100   645.500  1048.100
R  646.700  1075.200   647.500  1103.100   650.100  1126.000   650.200  1143.900      .000      .000

1 39565.000    23.000  1041.900  1116.800   285.000   360.000   330.000      .000      .000      .000
R  649.200   858.300   649.000   900.100   649.000   926.900   648.400   956.900   648.500   968.100
R  648.400   980.000   647.800   990.000   647.500   999.900   647.100  1019.900   646.500  1041.900
R  644.400  1048.000   643.800  1057.600   643.000  1059.700   642.300  1076.800   641.900  1078.800
R  641.600  1083.800   641.900  1089.900   642.300  1091.800   642.800  1094.700   643.100  1106.000
R  647.100  1116.800   647.900  1124.800   650.700  1148.300      .000      .000      .000      .000

C     .030      .035      .050      .300      .500      .000      .000      .000      .000      .000
1 39595.000      .000      .000      .000    30.000    30.000    30.000      .000      .000      .000
```

```
        S-235**CEMETARY ACCESS ROAD**SS 22+73.56
X1  39695.000     45.000   1013.900   1028.900    100.000    100.000    100.000       .000       .000       .000
X3     10.000       .000       .000    815.000       .000   1100.000       .000    647.000    647.000       .000
GR    647.900    800.000    647.900   1000.200    647.800   1012.100    648.900   1012.200    643.000   1013.900
GR    642.900   1014.200    642.800   1014.400    642.500   1014.900    642.000   1015.400    641.700   1015.900
GR    640.500   1016.400    641.700   1016.900    642.000   1017.400    642.500   1017.900    642.800   1018.400
GR    642.900   1018.700    643.000   1018.900    642.900   1019.200    642.800   1019.400    642.500   1019.900
GR    642.000   1020.400    641.700   1020.900    640.500   1021.400    641.700   1021.900    642.000   1022.400
GR    642.500   1022.900    642.800   1023.400    642.900   1023.700    643.000   1023.900    642.900   1024.200
GR    642.800   1024.400    642.500   1024.900    642.000   1025.400    641.700   1025.900    640.500   1026.400
GR    641.700   1026.900    642.000   1027.400    642.500   1027.900    642.800   1028.400    642.900   1028.700
GR    643.000   1028.900    649.000   1034.200    648.000   1035.100    648.700   1063.100    649.000   1260.000

NC       .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    815.000   1100.000
X1  39700.000       .000       .000       .000      5.000      5.000      5.000       .000       .000       .000
BT    -45.000    800.000    647.900    647.900   1000.200    647.900    647.900   1012.100    647.800    647.800
BT       .000   1012.200    648.900    648.900   1013.900    649.000    643.000   1014.200    649.000    644.200
BT       .000   1014.400    649.000    644.520   1014.900    649.000    644.990   1015.400    649.000    645.280
BT       .000   1015.900    649.000    645.440   1016.400    649.000    645.500   1016.900    649.000    645.440
BT       .000   1017.400    649.000    645.280   1017.900    649.000    644.990   1018.400    649.000    644.520
BT       .000   1018.700    649.000    644.200   1018.900    649.000    643.000   1019.200    649.000    644.200
BT       .000   1019.400    649.000    644.520   1019.900    649.000    644.990   1020.400    649.000    645.280
BT       .000   1020.900    649.000    645.440   1021.400    649.000    645.500   1021.900    649.000    645.440
BT       .000   1022.400    649.000    645.280   1022.900    649.000    644.990   1023.400    649.000    644.520
BT       .000   1023.700    649.000    644.200   1023.900    649.000    643.000   1024.200    649.000    644.200
BT       .000   1024.400    649.000    644.520   1024.900    649.000    644.990   1025.400    649.000    645.280
BT       .000   1025.900    649.000    645.440   1026.400    649.000    645.500   1026.900    649.000    645.440
BT       .000   1027.400    649.000    645.280   1027.900    649.000    644.990   1028.400    649.000    644.520
BT       .000   1028.700    649.000    644.200   1028.900    649.000    643.000   1034.200    649.000    649.000
BT       .000   1035.100    648.000    648.000   1063.100    648.700    648.700   1260.000    649.000    649.000

ET       .000      9.110      9.110      9.110      9.110      9.110      9.110      9.110    815.000   1100.000
X1  39730.000       .000       .000       .000     30.000     30.000     30.000       .000       .000       .000
X2       .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

NC       .000       .000       .050       .000       .000       .000       .000       .000       .000       .000
X1  39735.000     16.000   1012.100   1034.200      5.000      5.000      5.000       .000       .000       .000
X3     10.000       .000       .000    815.000       .000   1100.000       .000    647.800    647.800       .000
GR    647.900    800.000    647.800   1012.100    648.900   1012.100    648.900   1014.100    642.400   1014.200
GR    641.400   1014.300    640.400   1017.100    640.500   1023.200    640.600   1028.900    641.900   1030.900
GR    642.400   1030.900    645.100   1032.300    645.500   1034.100    649.000   1034.200    648.000   1035.100
GR    648.700   1063.100       .000       .000       .000       .000       .000       .000       .000       .000

NC       .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
X1  39775.000       .000       .000       .000     40.000     40.000     40.000       .000      -.200       .000
X3       .000       .000       .000    815.000       .000   1100.000       .000       .000       .000       .000
```

```
   39865.000    19.000  1037.100  1087.300    90.000    90.000    90.000      .000      .000      .000
     650.000   850.200   649.200   880.300   649.000   915.000   649.000   948.200   648.800   975.200
     648.600  1000.200   648.400  1023.400   647.800  1037.100   643.000  1047.200   642.600  1054.400
     641.800  1055.200   641.000  1063.300   641.700  1078.300   642.600  1079.300   647.200  1087.300
     649.000  1095.000   650.000  1130.100   650.200  1154.300   650.200  1158.400      .000      .000

   40185.000    20.000  1004.300  1041.400   300.000   350.000   320.000      .000      .000      .000
     650.800   828.200   649.500   882.300   649.000   895.000   649.000   928.400   648.900   963.000
     648.700  1000.400   648.000  1004.300   642.700  1012.100   641.800  1015.100   641.800  1024.200
     642.100  1032.200   642.700  1034.200   646.400  1041.400   648.200  1075.200   648.400  1125.200
     650.100  1133.200   649.900  1163.200   648.600  1170.200   648.800  1206.100   649.100  1240.100

   40395.000    20.000   936.300   989.100   210.000   210.000   210.000      .000      .000      .000
     652.900   720.400   653.100   752.600   651.700   780.300   650.600   808.400   649.800   837.200
     649.300   870.400   649.300   907.400   648.500   936.300   642.900   947.100   642.400   949.200
     642.000   952.200   641.800   955.100   642.000   960.000   642.800   962.900   644.400   965.100
     645.000   977.000   647.500   989.100   648.400  1000.000   649.300  1023.300   649.000  1053.100

1  40525.000    23.000   929.000   978.000   170.000    90.000   130.000      .000      .000      .000
R    649.900   802.000   649.900   853.000   650.000   886.000   650.000   929.000   643.800   947.000
R    643.500   948.000   643.100   953.000   643.200   959.000   643.800   963.000   646.000   978.000
R    647.800   990.000   648.100  1000.000   648.100  1022.000   648.900  1120.000   649.200  1215.000
R    649.500  1305.000   649.700  1400.000   650.100  1490.000   650.800  1580.000   651.400  1675.000
R    652.200  1762.000   653.300  1862.000   654.700  1953.000      .000      .000      .000      .000

C       .030      .035      .070      .000      .000      .000      .000      .000      .000      .000
1  40735.000    13.000   918.100   956.000   210.000   210.000   210.000      .000      .000      .000
3       .000      .000      .000      .000      .000  1380.000      .000      .000      .000      .000
R    650.900   895.900   650.600   918.100   643.200   933.100   642.800   935.000   642.100   944.800
R    642.200   952.200   643.200   953.100   645.600   956.000   647.000   963.800   647.200   971.200
R    648.900   977.800   649.400   990.000   652.000  1000.000      .000      .000      .000      .000

1  40935.000    13.000   904.100   936.900   200.000   200.000   200.000      .000      .000      .000
R    651.300   740.200   650.900   778.000   650.400   813.300   650.500   847.100   649.600   904.100
R    643.400   914.900   642.900   917.000   642.600   924.900   642.800   933.100   643.400   935.200
R    646.000   936.900   647.900   947.500   652.000   968.000      .000      .000      .000      .000

1  41135.000    14.000   883.000   958.000   200.000   200.000   200.000      .000      .000      .000
R    650.800   720.200   650.300   827.100   650.200   871.100   649.700   883.000   643.400   897.800
R    642.900   897.900   642.800   904.000   642.700   908.900   642.700   914.000   643.000   919.100
R    643.400   919.200   645.900   921.900   647.600   934.200   652.000   958.000      .000      .000

T      6.000   381.000   513.000   585.000   711.000   759.000  1135.000      .000      .000      .000
1  41330.000    15.000   886.900   916.000   195.000   195.000   195.000      .000      .000      .000
3     10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
R    650.400   640.000   650.200   738.000   650.300   791.000   650.200   854.900   650.500   867.100
R    644.200   876.900   643.800   877.100   643.100   882.000   642.800   886.900   643.100   892.400
R    643.800   897.000   644.200   897.000   646.600   898.200   650.700   910.300   652.000   916.000
```

```
X1  41530.000     15.000    869.400    918.100    200.000    200.000    200.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000   1238.000       .000       .000       .000       .000
GR    650.300    666.000    649.800    770.400    650.000    856.800    651.400    869.400    644.200    883.100
GR    644.000    883.200    642.600    888.500    643.000    892.900    643.300    898.000    643.900    902.900
GR    644.200    902.900    647.000    918.100    647.500    955.000    647.800    980.000    652.000   1000.000

X1  41710.000     16.000    934.900    980.000    230.000    135.000    180.000       .000       .000       .000
GR    648.500    884.200    649.100    934.900    644.200    944.000    643.900    944.100    643.800    951.100
GR    643.500    958.300    643.600    967.000    644.100    973.000    644.400    973.000    647.000    980.000
GR    647.800   1000.200    646.500   1055.000    647.500   1135.900    649.900   1224.100    655.000   1313.200
GR    656.600   1367.600       .000       .000       .000       .000       .000       .000       .000       .000

NC       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
X1  41790.000       .000       .000       .000    100.000     60.000     80.000       .000       .100       .000

NC       .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
       S-240**CULVERT**SS 43+09.30
X1  41890.000     25.000   1510.000   1530.500    120.000     80.000    100.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    649.900    649.900       .000
GR    651.000   1000.000    650.800   1500.000    644.500   1510.000    644.000   1510.200    644.000   1511.000
GR    644.000   1512.100    643.900   1513.500    643.900   1515.000    643.900   1516.500    643.900   1517.900
GR    643.900   1519.000    643.900   1519.800    643.900   1520.000    643.900   1520.700    643.900   1521.500
GR    643.900   1522.600    643.900   1524.000    643.900   1525.500    643.900   1527.000    644.000   1528.400
GR    644.000   1529.500    644.000   1530.300    644.500   1530.500    650.800   1540.500    651.000   2040.500

NC       .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
X1  41895.000       .000       .000       .000      5.000      5.000      5.000       .000       .000       .000
BT    -25.000   1000.000    651.000    651.000   1500.000    650.800    650.800   1510.000    650.800    644.500
BT       .000   1510.200    650.800    646.100   1511.000    650.800    647.440   1512.100    650.800    648.600
BT       .000   1513.500    650.800    649.300   1515.000    650.800    649.500   1516.500    650.800    649.300
BT       .000   1517.900    650.800    648.600   1519.000    650.800    647.440   1519.800    650.800    646.100
BT       .000   1520.000    650.800    644.500   1520.700    650.800    646.100   1521.500    650.800    647.400
BT       .000   1522.600    650.800    648.600   1524.000    650.800    649.300   1525.500    650.800    649.500
BT       .000   1527.000    650.800    649.300   1528.400    650.800    648.600   1529.500    650.800    647.400
BT       .000   1530.300    650.800    646.100   1530.500    650.800    644.500   1540.500    650.800    650.800
BT       .000   2040.500    651.000    651.000       .000       .000       .000       .000       .000       .000

X1  41925.000       .000       .000       .000     30.000     30.000     30.000       .000       .000       .000
X2       .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

NC       .000       .000       .070       .000       .000       .000       .000       .000       .000       .000
X1  41930.000       .000       .000       .000      5.000      5.000      5.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    650.800    650.800       .000

NC       .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
X1  41960.000     20.000    889.200    906.100     30.000     30.000     30.000       .000       .000       .000
X3       .000       .000       .000    860.000       .000    960.000       .000       .000       .000       .000
GR    649.000    666.600    651.000    682.300    651.500    733.300    651.400    796.100    650.100    840.200
GR    646.500    852.900    646.500    869.400    645.300    884.100    645.000    884.100    644.700    889.200
GR    644.000    893.100    643.900    896.900    644.800    902.100    645.300    902.200    648.600    906.100
GR    649.000    931.900    648.000   1000.000    648.000   1075.100    650.000   1143.900    655.700   1280.000
```

```
1  42155.000     18.000    891.400    920.500    195.000    195.000    195.000       .000       .000       .000
3     10.000       .000       .000    830.000       .000   1050.000       .000       .000       .000       .000
R    646.900    700.600    646.600    759.300    647.100    821.500    647.900    891.400    645.300    899.100
R    645.100    899.200    644.200    904.300    644.600    908.500    644.500    912.300    645.100    917.300
R    645.300    917.400    648.000    920.500    648.800    960.400    648.100   1000.300    648.500   1050.300
R    649.900   1112.100    651.000   1205.100    652.100   1294.800       .000       .000       .000       .000

1  42420.000     20.000    912.700    944.600    265.000    265.000    265.000       .000       .000       .000
3       .000       .000       .000       .000       .000   1100.000       .000       .000       .000       .000
R    653.000    800.400    652.800    846.600    652.000    870.600    650.400    899.500    648.800    912.700
R    648.300    912.700    645.300    920.400    645.100    920.400    644.700    925.200    644.600    930.500
R    644.500    935.200    645.100    940.500    645.300    940.500    648.600    944.600    648.200    967.600
R    647.700   1000.500    648.400   1093.700    649.700   1184.400    651.700   1272.400    651.900   1333.300

IC      .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
1  42725.000     22.000    934.300    964.300    305.000    305.000    305.000       .000       .000       .000
3       .000       .000       .000    920.000       .000   1000.000       .000       .000       .000       .000
R    653.100    750.400    653.800    833.900    650.800    924.200    650.500    934.300    650.100    934.300
R    645.200    943.000    644.600    943.000    644.000    945.000    644.100    950.200    644.200    955.000
R    643.700    958.100    644.100    960.100    645.200    960.300    648.500    964.300    648.700    980.400
R    648.800   1000.200    648.600   1033.200    648.600   1068.400    651.700   1086.300    649.200   1109.400
R    647.900   1212.300    647.700   1300.200       .000       .000       .000       .000       .000       .000

IC      .040       .035       .070       .000       .000       .000       .000       .000       .000       .000
      S-245**CHICAGO AND NORTHWESTERN R.R.**SS 51+88.30
X1 42845.000     19.000   1247.000   1265.600    120.000    120.000    120.000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    663.000    663.000       .000
GR   668.700   1000.000    667.500   1202.000    663.000   1221.000    648.800   1247.000    647.000   1247.400
GR   645.000   1248.000    645.000   1248.300    644.900   1250.100    644.800   1252.800    644.800   1256.300
GR   648.800   1259.000    644.800   1262.500    644.900   1264.300    645.000   1265.200    645.000   1265.300
GR   648.800   1265.600    663.000   1285.000    667.000   1301.000    666.500   1500.000       .000       .000

NC      .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
X1 42855.000       .000       .000       .000     10.000     10.000     10.000       .000       .000       .000
BT   -19.000   1000.000    668.750    668.750   1202.000    667.500    667.500   1221.000    667.400    663.000
BT      .000   1247.000    667.300    648.800   1247.400    667.300    650.700   1248.000    667.300    652.500
BT      .000   1248.300    667.300    652.700   1250.100    667.300    655.000   1252.800    667.300    656.900
BT      .000   1256.300    667.300    658.700   1259.000    667.200    656.900   1262.500    667.200    655.000
BT      .000   1264.300    667.200    652.700   1265.200    667.200    650.700   1265.300    667.100    650.500
BT      .000   1265.600    667.100    648.800   1285.000    667.100    663.000   1301.000    667.000    667.000
BT      .000   1500.000    667.100    666.500       .000       .000       .000       .000       .000       .000

X1 43045.000       .000       .000       .000    190.000    190.000    190.000       .000       .000       .000
X2      .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

NC      .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
X1 43055.000     28.000   1002.300   1065.200     10.000     10.000     10.000       .000       .000       .000
X3    10.000       .000       .000       .000       .000       .000       .000    666.500    666.500       .000
GR   660.800    774.200    661.000    805.400    661.300    857.100    661.000    874.200    660.600    913.200
GR   663.500    946.100    664.900    973.100    666.900   1000.000    667.300   1002.300    661.500   1025.100
GR   650.500   1025.800    650.500   1028.100    645.800   1028.200    644.600   1028.300    643.800   1032.900
GR   643.800   1036.200    644.200   1040.300    644.800   1044.200    645.700   1044.300    650.300   1044.400
GR   650.500   1047.400    661.600   1048.300    666.700   1065.200    666.600   1093.500    666.800   1121.400
GR   667.000  1151.600   667.200  1180.200   666.700  1229.100      .000      .000      .000      .000

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1 43155.000      .000      .000      .000   120.000    80.000   100.000      .000      .000      .000

X1 43305.000    22.000  1085.100  1159.900   170.000   130.000   150.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR   662.200   582.000   659.200   639.100   654.800   730.100   654.200   825.000   658.200   888.900
GR   653.200   966.100   652.900   999.900   653.500  1007.800   657.700  1040.800   656.800  1066.100
GR   655.000  1085.100   649.200  1095.100   646.800  1097.200   645.400  1104.000   645.500  1109.100
GR   645.200  1114.100   646.800  1118.900   648.800  1120.200   648.600  1138.900   661.000  1159.900
GR   664.700  1185.800   666.200  1209.500      .000      .000      .000      .000      .000      .000

X1 43675.000    24.000  1128.500  1175.800   335.000   385.000   370.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
GR   661.200   716.300   660.200   752.200   658.400   812.300   655.800   897.100   656.400   971.200
GR   653.500   984.800   655.800   992.100   655.700  1000.000   654.100  1015.000   653.300  1094.900
GR   653.000  1128.500   648.400  1142.100   647.100  1144.100   646.200  1147.100   646.200  1153.200
GR   646.300  1159.200   647.100  1163.200   648.800  1165.900   651.500  1175.800   650.800  1265.400
GR   650.100  1305.000   648.500  1323.900   650.500  1347.200   658.900  1363.900      .000      .000

QT     6.000   322.000   406.000   450.000   527.000   684.000  1041.000      .000      .000      .000
X1 44015.000    19.000  1086.200  1163.200   320.000   370.000   340.000      .000      .000      .000
GR   654.700   923.000   654.500   966.000   653.800  1000.100   653.100  1023.900   653.200  1056.800
GR   652.300  1086.200   648.700  1097.000   648.500  1103.400   647.200  1105.200   645.500  1109.100
GR   645.200  1114.200   645.300  1120.000   647.100  1123.900   649.200  1126.100   649.200  1134.100
GR   656.600  1163.200   657.900  1230.000   658.500  1284.000   658.400  1335.900      .000      .000

X1 44335.000    16.000  1131.100  1165.000   315.000   335.000   320.000      .000      .000      .000
GR   656.100   920.200   655.800   963.200   655.200   999.800   655.100  1035.100   654.700  1073.900
GR   654.000  1104.000   649.300  1122.900   648.900  1131.100   647.300  1132.900   646.900  1135.900
GR   646.900  1143.000   646.800  1151.100   647.400  1153.000   651.300  1165.000   652.700  1177.000
GR   657.400  1196.000      .000      .000      .000      .000      .000      .000      .000      .000

NC      .035      .035      .070      .300      .500      .000      .000      .000      .000      .000
X1 44530.000      .000      .000      .000   195.000   195.000   195.000      .000      .000      .000

         S-250**TRI-STATE TOLLWAY**SS 17+07.41
X1 44630.000    27.000  1123.900  1150.200   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   657.500   657.500      .000
GR   666.900   665.000   666.900   665.100   664.800   741.000   664.800   741.100   663.100   799.000
GR   661.900   849.300   661.400   869.300   660.800   961.500   660.800   987.100   660.800  1009.200
GR   659.000  1019.000   656.100  1084.800   655.300  1123.900   648.000  1125.000   647.400  1125.000
GR   646.900  1131.200   646.900  1138.300   647.900  1141.400   648.900  1143.300   648.800  1150.200
GR   654.900  1150.300   655.000  1175.700   659.100  1192.100   659.200  1241.300   658.000  1333.200
GR   658.400  1453.900   658.400  1479.900      .000      .000      .000      .000      .000      .000

SB     1.250     1.600     2.600      .000    20.000     1.500   222.000      .000   642.600   642.600
X1 44830.000    26.000  1124.000  1144.800   200.000   200.000   200.000      .000      .000      .000
X2      .000      .000     1.000   655.000   658.500      .000      .000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   661.100   658.500      .000
BT    -9.000   596.000   667.100      .000   708.100   665.100      .000   870.000   663.000      .000
BT      .000  1000.000   661.100      .000  1135.000   659.800      .000  1225.000   659.000      .000
BT      .000  1320.000   658.600      .000  1420.000   658.500      .000  1519.000   658.500      .000
```

```
  667.100   596.000   667.100   596.100   665.100   708.000   665.100   708.100   662.800   807.000
  662.000   850.000   660.900   906.000   659.200   999.900   658.300  1075.900   656.300  1121.800
  656.800  1122.800   656.700  1124.000   644.700  1124.000   643.500  1126.100   642.600  1128.100
  643.600  1134.200   644.300  1140.000   644.000  1144.100   644.800  1144.200   656.700  1144.300
  656.800  1144.800   656.300  1146.000   655.900  1201.100   656.300  1300.000   656.500  1417.000
  657.000  1516.600      .000      .000      .000      .000      .000      .000      .000      .000

     .030      .030      .060      .000      .000      .000      .000      .000      .000      .000
44870.000      .000      .000      .000    40.000    40.000    40.000      .000     1.300      .000

   S-255**COUNTY LINE ROAD**SS 20+55.24
44910.000    52.000  1363.000  1388.000    40.000    40.000    40.000      .000      .000      .000
   10.000      .000      .000      .000      .000      .000      .000   655.500   655.500      .000
  660.500  1000.000   655.150  1180.000   654.500  1325.000   650.000  1363.000   648.700  1363.500
  648.300  1364.000   647.720  1364.500   647.400  1365.000   647.200  1365.500   647.050  1365.800
  647.000  1366.000   647.050  1366.500   647.200  1367.000   647.400  1367.500   647.720  1368.000
  648.300  1368.500   648.700  1368.800   650.000  1369.000   650.000  1373.000   648.700  1373.300
  648.300  1373.500   647.720  1374.000   647.400  1374.500   647.200  1375.000   647.050  1375.500
  647.000  1376.000   647.050  1376.500   647.200  1377.000   647.400  1377.500   647.720  1378.000
  648.300  1378.500   648.700  1378.800   650.000  1379.000   650.000  1382.000   648.700  1382.300
  648.300  1382.500   647.720  1383.000   647.400  1383.500   647.200  1384.000   647.050  1384.500
  647.000  1385.000   647.050  1385.500   647.200  1386.000   647.400  1386.500   647.720  1387.000
  648.300  1387.500   648.700  1387.800   650.000  1388.000   653.800  1394.000   655.000  1487.000
  657.500  1494.000   657.500  1594.000      .000      .000      .000      .000      .000      .000

     .000      .000      .015      .000      .000      .000      .000      .000      .000      .000
44915.000      .000      .000      .000     5.000     5.000     5.000      .000      .000      .000
  -52.000  1000.000   663.000   660.500  1180.000   659.500   655.150  1325.000   658.000   655.000
     .000  1363.000   657.800   650.000  1363.500   657.500   651.300  1364.000   657.500   651.700
     .000  1364.500   657.500   652.300  1365.000   657.500   652.600  1365.500   657.500   652.800
     .000  1365.800   657.500   652.950  1366.000   657.500   653.000  1366.500   657.500   652.950
     .000  1367.000   657.500   652.800  1367.500   657.500   652.600  1368.000   657.500   652.300
     .000  1368.500   657.500   651.700  1368.800   657.500   651.300  1369.000   657.500   650.000
     .000  1373.000   657.500   650.000  1373.300   657.500   651.300  1373.500   657.500   651.700
     .000  1374.000   657.500   652.300  1374.500   657.500   652.600  1375.000   657.500   652.800
     .000  1375.500   657.500   652.950  1376.000   657.500   653.000  1376.500   657.500   652.950
     .000  1377.000   657.500   652.800  1377.500   657.500   652.600  1378.000   657.500   652.300
     .000  1378.500   657.500   651.700  1378.800   657.500   651.300  1379.000   657.500   650.000
     .000  1382.000   657.500   650.000  1382.300   657.500   651.300  1382.500   657.500   651.700
     .000  1383.000   657.500   652.300  1383.500   657.500   652.600  1384.000   657.500   652.800
     .000  1384.500   657.500   652.950  1385.000   657.500   653.000  1385.500   657.500   652.950
     .000  1386.000   657.500   652.800  1386.500   657.500   652.600  1387.000   657.500   652.300
     .000  1387.500   657.500   651.700  1387.800   657.500   651.300  1388.000   657.500   650.000
     .000  1394.000   657.500   653.800  1487.000   657.500   655.000  1494.000   657.500   657.500
     .000  1594.000   657.500   657.500      .000      .000      .000      .000      .000      .000

44955.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000
     .000      .000      .000      .000      .000      .000     1.000      .000      .000      .000
   10.000      .000      .000      .000      .000      .000      .000      .000      .000      .000
```

```
NC      .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
X1 44960.000    34.000  1030.100  1080.100     5.000     5.000     5.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   657.500   657.500      .000
GR   660.500   683.400   658.700   723.400   656.400   810.100   654.800   892.000   653.800   903.100
GR   655.400   903.100   655.800   903.300   656.400   903.900   655.700   952.000   654.700  1000.000
GR   654.600  1009.100   653.700  1030.100   649.800  1045.200   648.100  1047.100   647.700  1049.100
GR   646.600  1052.100   647.100  1052.300   647.400  1062.200   647.000  1071.000   646.700  1072.300
GR   647.200  1074.000   648.000  1074.200   653.700  1080.100   654.000  1088.100   654.500  1128.300
GR   654.900  1172.800   656.500  1179.900   656.100  1209.800   653.900  1227.100   651.900  1227.200
GR   651.500  1227.300   653.900  1378.000   654.500  1470.000   655.600  1558.000      .000      .000

NC      .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1 45025.000    20.000  1043.300  1086.300     5.000   130.000    65.000      .000      .000      .000
GR   657.900   955.900   657.500   971.100   657.300   974.800   654.600   981.200   655.100   987.800
GR   655.100  1000.100   654.300  1005.900   651.700  1024.100   651.000  1043.300   648.200  1047.200
GR   648.100  1053.200   648.000  1061.200   648.100  1070.200   648.300  1074.200   648.800  1080.300
GR   653.200  1086.300   654.400  1138.300   652.800  1203.200   654.100  1266.300   659.100  1350.100

X1 45345.000    20.000  1101.100  1134.200   310.000   330.000   320.000      .000      .000      .000
GR   662.900   898.800   662.400   913.900   661.900   917.200   659.600   923.000   661.100   929.900
GR   659.200   948.900   655.300  1000.100   653.100  1059.000   652.400  1101.100   649.600  1107.500
GR   648.800  1111.100   648.200  1114.000   647.800  1122.200   648.100  1124.000   648.800  1130.100
GR   649.600  1132.800   651.600  1134.200   658.700  1252.900   660.500  1327.900   660.500  1395.900

NC      .000      .000      .000      .300      .500      .000      .000      .000      .000      .000
X1 45650.000    18.000  1046.800  1082.800   295.000   310.000   305.000      .000      .000      .000
GR   661.000   868.700   656.400   940.700   651.900   999.600   652.100  1046.800   649.700  1049.900
GR   648.600  1054.900   648.400  1057.900   648.900  1064.800   648.800  1070.700   649.200  1077.100
GR   649.800  1079.900   652.100  1082.800   652.300  1099.700   655.300  1109.900   653.700  1116.800
GR   655.000  1173.600   654.900  1267.700   661.400  1351.500      .000      .000      .000      .000

       S-   **CONCRETE DAM**
X1 45750.000    23.000  1107.000  1136.000   100.000   100.000   100.000      .000      .000      .000
X3    10.000      .000      .000      .000      .000      .000      .000   648.000   648.000      .000
GR   661.000   869.000   654.200  1000.000   654.200  1107.000   652.750  1109.000   651.000  1110.000
GR   649.500  1112.000   648.900  1118.500   647.950  1118.800   647.800  1119.000   647.500  1119.500
GR   647.400  1120.000   647.500  1120.500   647.800  1121.000   647.950  1121.300   648.900  1121.500
GR   650.200  1129.000   651.000  1130.000   653.000  1134.000   654.500  1136.000   655.300  1146.000
GR   655.600  1177.000   659.800  1268.000   662.000  1352.000      .000      .000      .000      .000

NC      .000      .000      .015      .000      .000      .000      .000      .000      .000      .000
X1 45755.000      .000      .000      .000     5.000     5.000     5.000      .000      .000      .000
BT   -23.000   869.000   661.000   661.000  1000.000   654.200   654.200  1107.000   654.200   654.200
BT      .000  1109.000   652.750   652.750  1110.000   651.000   651.000  1112.000   651.000   649.500
BT      .000  1118.500   651.000   648.900  1118.800   651.000   649.850  1119.000   651.000   650.000
BT      .000  1119.500   651.000   650.300  1120.000   651.000   650.400  1120.500   651.000   650.300
BT      .000  1121.000   651.000   650.000  1121.300   651.000   649.850  1121.500   651.000   648.900
BT      .000  1129.000   651.000   650.200  1130.000   651.000   651.000  1134.000   653.000   653.000
BT      .000  1136.000   654.500   654.500  1146.000   655.300   655.300  1177.000   655.600   655.600
BT      .000  1268.000   659.800   659.800  1352.000   662.000   662.000      .000      .000      .000
```

```
 45757.000       .000       .000       .000      2.000      2.000      2.000       .000       .000       .000
      .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

      .000       .000       .070       .000       .000       .000       .000       .000       .000       .000
 45760.000       .000       .000       .000      3.000      3.000      3.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    651.000    651.000       .000

 45785.000       .000       .000       .000     25.000     25.000     25.000       .000       .000       .000

      .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
   S-260**CEMETARY ROAD**SS 28+61.36
 45810.000     24.000   1089.000   1103.000     25.000     25.000     25.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    653.900    653.900       .000
   660.700    866.000    656.200    929.000    654.800    976.000    654.200   1000.000    654.200   1045.000
   654.200   1082.000    654.100   1082.100    651.000   1085.000    648.000   1089.000    647.900   1089.000
   647.500   1090.000    647.000   1092.000    647.000   1094.000    647.000   1096.000    647.000   1098.000
   647.000   1100.000    647.500   1103.000    648.000   1104.000    649.000   1106.000    651.000   1116.000
   654.200   1116.200    665.500   1244.200    666.000   1337.200    669.300   1480.200       .000       .000

      .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
 45815.000       .000       .000       .000      5.000      5.000      5.000       .000       .000       .000
   -24.000    866.000    660.700    660.700    929.000    656.200    656.200    976.000    654.800    654.800
      .000   1000.000    654.200    654.200   1045.000    654.200    654.200   1082.000    655.000    654.200
      .000   1082.100    658.000    654.100   1085.000    658.000    651.000   1089.000    658.000    651.000
      .000   1089.000    658.000    651.800   1090.000    658.000    652.500   1092.000    658.000    653.100
      .000   1094.000    658.000    653.500   1096.000    658.000    653.100   1098.000    658.000    652.500
      .000   1100.000    658.000    651.800   1103.000    658.000    651.000   1104.000    658.000    651.000
      .000   1106.000    658.000    651.000   1116.000    658.000    654.100   1116.200    654.200    654.200
      .000   1244.200    665.500    665.500   1337.200    666.000    666.000   1480.200    669.300    669.300

 45835.000       .000       .000       .000     20.000     20.000     20.000       .000       .000       .000
      .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

      .035       .035       .070       .000       .000       .000       .000       .000       .000       .000
 45840.000     25.000   1081.900   1115.800      5.000      5.000      5.000       .000       .000       .000
    10.000       .000       .000       .000       .000       .000       .000    654.200    654.200       .000
   659.900    851.700    660.800    865.800    656.000    929.100    654.700    975.800    654.000   1000.100
   654.100   1010.900    654.000   1059.900    654.100   1081.900    651.000   1084.800    648.400   1087.800
   647.700   1089.000    647.100   1091.900    646.900   1095.900    646.900   1100.000    647.300   1101.900
   648.000   1103.700    649.100   1105.900    651.000   1105.900    654.800   1115.800    654.600   1143.000
   655.200   1222.800    655.500   1242.500    655.900   1336.500    656.500   1376.600    659.200   1478.800

      .030       .030       .060       .100       .300       .000       .000       .000       .000       .000
 45870.000       .000       .000       .000     30.000     30.000     30.000       .000       .000       .000

 46140.000     23.000   1089.700   1191.700    270.000    270.000    270.000       .000       .000       .000
   655.900    845.800    653.900    898.700    652.400    950.900    652.200    967.600    653.000   1000.000
   653.900   1034.800    652.300   1089.700    650.200   1091.800    649.200   1091.900    648.200   1101.900
   647.900   1113.900    648.000   1121.900    647.800   1132.900    647.500   1146.700    647.600   1153.900
   648.000   1169.700    648.100   1178.700    649.400   1188.700    650.100   1191.000    652.400   1191.700
   654.300   1286.400    654.900   1387.700    659.000   1492.400       .000       .000       .000       .000
```

```
X1  46290.000     24.000   1135.200   1467.800    150.000    150.000    150.000       .000       .000       .000
GR    659.000    839.000    653.900    995.300    653.800   1000.000    653.700   1014.400    654.700   1042.500
GR    654.000   1088.400    655.800   1126.400    652.500   1135.200    650.800   1136.900    649.900   1138.500
GR    648.600   1164.300    648.900   1199.500    648.700   1232.500    648.700   1267.500    648.300   1296.200
GR    648.000   1332.300    647.700   1371.400    647.800   1404.300    647.900   1427.200    648.500   1454.600
GR    650.900   1466.500    652.300   1467.800    656.700   1532.500    660.100   1582.100       .000       .000

NC       .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
X1  46540.000     18.000   1163.300   1359.100    250.000    250.000    250.000       .000       .000       .000
GR    654.900   1000.000    654.900   1163.300    650.800   1173.300    650.000   1174.300    648.200   1190.400
GR    648.500   1202.200    648.900   1220.300    648.700   1245.200    648.700   1275.200    648.600   1305.300
GR    648.800   1325.300    649.400   1340.100    650.000   1350.200    650.900   1355.300    656.100   1359.100
GR    656.800   1410.700    657.300   1496.100    660.000   1618.000       .000       .000       .000       .000

NC       .030       .030       .060       .000       .000       .000       .000       .000       .000       .000
         S-265**CEMETARY ROAD**SS 35+67.96
X1  46610.000     18.000   1204.000   1235.800     70.000     70.000     70.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    654.800    654.800       .000
GR    654.900   1000.000    654.200   1062.100    654.700   1141.800    654.600   1204.000    653.100   1208.000
GR    651.300   1209.100    649.600   1209.200    649.000   1211.100    648.600   1215.000    648.400   1219.000
GR    648.200   1223.000    648.000   1226.900    648.800   1229.000    651.100   1229.800    652.700   1231.000
GR    655.600   1235.800    655.900   1305.000    659.400   1440.400       .000       .000       .000       .000

NC       .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
X1  46620.000     23.000   1212.000   1226.000     10.000     10.000     10.000       .000       .000       .000
BT    -23.000   1000.000    654.900    654.900   1062.100    655.000    654.200   1141.800    654.800    654.700
BT       .000   1204.000    655.500    654.600   1208.000    655.500    653.100   1209.100    655.500    651.300
BT       .000   1209.200    655.500    649.600   1211.100    655.500    649.000   1212.000    655.500    648.700
BT       .000   1212.100    655.500    652.000   1213.000    655.500    652.800   1215.000    655.500    653.500
BT       .000   1219.000    655.500    654.000   1223.000    655.500    653.500   1225.000    655.500    652.800
BT       .000   1225.900    655.500    651.500   1226.000    655.500    647.800   1229.000    655.500    648.800
BT       .000   1229.800    655.500    651.100   1231.000    655.500    652.700   1235.800    655.600    655.600
BT       .000   1305.000    655.900    655.900   1440.400    659.400    659.400       .000       .000       .000
GR    654.900   1000.000    654.200   1062.100    654.700   1141.800    654.600   1204.000    653.100   1208.000
GR    651.300   1209.100    649.600   1209.200    649.000   1211.100    648.700   1212.000    648.700   1212.100
GR    648.600   1213.000    648.400   1215.000    648.300   1219.000    648.000   1223.000    647.900   1225.000
GR    647.800   1225.900    647.800   1226.000    648.800   1229.000    651.100   1229.800    652.700   1231.000
GR    655.600   1235.800    655.900   1305.000    659.400   1440.400       .000       .000       .000       .000

X1  46650.000       .000       .000       .000     30.000     30.000     30.000       .000       .000       .000
X2       .000       .000       .000       .000       .000       .000      1.000       .000       .000       .000

NC       .000       .000       .060       .000       .000       .000       .000       .000       .000       .000
X1  46660.000       .000       .000       .000     10.000     10.000     10.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    654.900    655.500       .000

NC       .000       .000       .000       .100       .300       .000       .000       .000       .000       .000
         S-270**GRAND AVENUE**SS 38+27.79
X1  46720.000     24.000   1094.700   1108.000     60.000     60.000     60.000       .000       .000       .000
X3     10.000       .000       .000       .000       .000       .000       .000    656.200    656.200       .000
GR    664.800    685.000    664.800    685.100    664.700    685.200    662.600    786.900    662.600    787.000
GR    662.100    809.000    660.900    862.200    659.700    933.900    663.600   1000.000    658.700   1038.200
GR    656.900   1081.800    651.600   1094.700    651.200   1096.900    651.100   1098.000    650.600   1103.000
```

```
    649.300   1108.000    650.300   1110.900    651.300   1114.000    655.500   1120.200    657.400   1127.900
    658.300   1185.000    659.700   1280.800    664.500   1377.700    665.600   1473.900       .000       .000

       .900      1.600      2.600       .000     13.000       .010     84.500       .000       .000       .000
1 46800.000       .000       .000       .000     80.000     80.000     80.000       .000       .000       .000
2      .000       .000      1.000    655.500    656.800       .000       .000       .000       .000       .000
3    10.000       .000       .000       .000       .000       .000       .000    658.800    659.400       .000
T    -9.000    875.000    661.000       .000    933.900    659.700       .000   1000.000    663.600       .000
T      .000   1065.000    658.800       .000   1110.000    658.900       .000   1210.000    659.400       .000
T      .000   1305.000    660.900       .000   1377.700    664.500       .000   1473.900    665.600       .000

1 46880.000     23.000   1033.100   1069.900     80.000     80.000     80.000       .000      -.700       .000
3      .000       .000       .000    999.800       .000   1150.800       .000       .000       .000       .000
R   669.400    968.200    666.900    977.000    662.100    999.800    652.300   1033.100    651.400   1035.900
R   650.400   1038.800    649.400   1042.200    649.000   1044.200    649.800   1049.100    649.300   1054.900
R   649.700   1059.900    650.200   1062.000    653.500   1069.900    656.100   1089.800    660.700   1109.700
R   661.100   1117.800    658.700   1128.900    658.700   1140.100    655.900   1150.800    656.000   1217.900
R   657.100   1311.900    663.100   1508.600    669.300   1560.000       .000       .000       .000       .000

1 47100.000       .000       .000       .000    220.000    220.000    220.000       .000       .700       .000

1 47400.000     21.000   1018.900   1097.900    300.000    300.000    300.000       .000       .000       .000
R   673.600    978.800    665.800   1000.100    660.400   1018.900    651.900   1043.900    651.200   1044.900
R   650.200   1053.300    649.900   1057.900    649.900   1064.200    650.000   1075.100    650.000   1084.800
R   650.300   1085.800    651.200   1088.000    656.300   1097.900    658.600   1111.100    667.300   1126.800
R   667.000   1139.900    662.000   1159.000    661.800   1180.600    667.500   1198.000    668.100   1209.800
R   668.600   1250.900       .000       .000       .000       .000       .000       .000       .000       .000

C      .000       .000       .000       .300       .500       .000       .000       .000       .000       .000
1 47625.000       .000       .000       .000    225.000    225.000    225.000       .000       .000       .000

     S-272**DIRT ROAD**SS 47+79.42
1 47725.000     48.000   1349.000   1364.000    100.000    100.000    100.000       .000       .000       .000
3    10.000       .000       .000       .000       .000       .000       .000    655.800    655.800       .000
R   667.300   1000.000    666.800   1217.000    664.300   1270.000    660.200   1284.000    659.000   1310.000
R   658.200   1330.000    651.500   1347.000    649.400   1349.000    648.100   1349.300    647.600   1349.500
R   647.000   1350.000    646.500   1350.500    646.200   1351.000    646.000   1351.500    645.900   1352.000
R   645.900   1352.500    645.900   1353.000    646.000   1353.500    646.200   1354.000    646.500   1354.500
R   647.000   1355.000    647.600   1355.500    648.100   1355.800    649.400   1356.000    649.400   1357.000
R   648.100   1357.300    647.600   1357.500    647.000   1358.000    646.500   1358.500    646.200   1359.000
R   646.000   1359.500    645.900   1360.000    645.900   1360.500    645.900   1361.000    646.000   1361.500
R   646.200   1362.000    646.500   1362.500    647.000   1363.000    647.600   1363.500    648.100   1363.800
R   649.400   1364.000    649.500   1366.000    651.500   1367.000    654.500   1372.000    657.700   1389.000
R   659.200   1418.000    667.500   1554.000    671.200   1616.000       .000       .000       .000       .000

C      .000       .000       .015       .000       .000       .000       .000       .000       .000       .000
1 47730.000       .000       .000       .000      5.000      5.000      5.000       .000       .000       .000
T   -48.000   1000.000    667.300    667.300   1217.000    666.800    666.800   1270.000    664.300    664.300
T     ..000   1284.000    660.200    660.200   1310.000    659.000    659.000   1330.000    658.700    658.200
T      .000   1347.000    658.600    651.500   1349.000    658.600    649.400   1349.300    658.600    650.700
T      .000   1349.500    658.600    651.200   1350.000    658.600    651.900   1350.500    658.600    652.300
T      .000   1351.000    658.600    652.600   1351.500    658.600    652.800   1352.000    658.600    652.900
T      .000   1352.500    658.600    652.900   1353.000    658.600    652.900   1353.500    658.600    652.800
T      .000   1354.000    658.600    652.600   1354.500    658.600    652.300   1355.000    658.700    651.900
```

```
BT       .000  1355.500   658.700   651.200  1355.800   658.700   650.700  1356.000   658.700   649.400
BT       .000  1357.000   658.700   649.400  1357.300   658.700   650.700  1357.500   658.700   651.200
BT       .000  1358.000   658.700   651.900  1358.500   658.700   652.300  1359.000   658.700   652.600
BT       .000  1359.500   658.700   652.800  1360.000   658.700   652.900  1360.500   658.700   652.900
BT       .000  1361.000   658.700   652.900  1361.500   658.700   652.800  1362.000   658.700   652.600
BT       .000  1362.500   658.700   652.300  1363.000   658.800   651.900  1363.500   658.800   651.200
BT       .000  1363.800   658.800   650.700  1364.000   658.800   649.400  1366.000   658.800   649.500
BT       .000  1367.000   658.800   651.500  1372.000   658.800   654.500  1389.000   659.000   657.700
BT       .000  1418.000   659.200   659.200  1554.000   667.500   667.500  1616.000   671.200   671.200

X1  47760.000      .000      .000      .000    30.000    30.000    30.000      .000      .000      .000
X2       .000      .000      .000      .000      .000      .000     1.000      .000      .000      .000

NC       .000      .000      .060      .000      .000      .000      .000      .000      .000      .000
X1  47765.000    16.000  1042.100  1103.200     5.000     5.000     5.000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   658.600   658.600      .000
GR    666.900   928.000   664.300   981.000   660.100   996.000   658.100  1042.100   651.500  1059.200
GR    649.800  1061.200   649.100  1065.200   648.600  1068.000   648.900  1071.800   649.500  1078.000
GR    651.500  1079.900   654.500  1085.300   657.600  1103.200   660.400  1184.300   667.400  1268.200
GR    670.000  1339.800      .000      .000      .000      .000      .000      .000      .000      .000

NC       .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1  47805.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000

QT      6.000    87.000    90.000    90.000    90.000   522.000   916.000      .000      .000      .000
X1  48100.000    17.000  1040.900  1108.900   295.000   295.000   295.000      .000      .000      .000
GR    671.500   974.800   666.100  1000.100   658.500  1031.000   654.500  1040.900   651.400  1048.800
GR    650.400  1051.800   649.600  1060.100   649.600  1071.100   648.800  1077.800   648.900  1088.000
GR    649.200  1096.700   651.500  1104.900   656.900  1108.900   661.700  1121.800   662.200  1128.100
GR    672.200  1169.900   673.800  1211.500      .000      .000      .000      .000      .000      .000

X1  48290.000    18.000  1035.100  1120.100   210.000   170.000   190.000      .000      .000      .000
GR    674.900   945.200   663.700   974.100   663.100  1000.200   663.200  1035.100   659.800  1045.100
GR    658.900  1056.900   652.000  1082.800   651.500  1085.000   650.500  1087.300   649.700  1090.300
GR    649.800  1105.500   650.200  1110.500   650.500  1117.100   651.500  1119.100   652.600  1120.100
GR    657.800  1140.900   659.400  1167.900   693.100  1230.300      .000      .000      .000      .000

NC       .030      .030      .070      .000      .000      .000      .000      .000      .000      .000
X1  48510.000    17.000  1007.900  1069.700   250.000   190.000   220.000      .000      .000      .000
GR    668.500   970.100   659.100   991.700   659.000   999.900   659.000  1007.900   652.800  1018.900
GR    651.600  1021.000   650.500  1022.800   650.200  1031.800   650.200  1037.900   648.800  1042.800
GR    649.600  1047.900   651.600  1051.000   653.200  1051.900   657.800  1069.700   659.100  1083.600
GR    670.200  1109.600   682.200  1158.600      .000      .000      .000      .000      .000      .000

X1  48815.000    20.000  1031.900  1066.300   295.000   315.000   305.000      .000      .000      .000
GR    658.700   760.000   657.400   819.800   655.400   870.200   654.500   895.000   653.100   910.300
GR    652.800   930.100   654.200   969.100   654.000  1000.100   653.600  1015.000   652.300  1031.900
GR    651.700  1035.200   650.700  1038.100   650.100  1043.800   650.100  1052.200   650.700  1056.200
GR    650.800  1061.100   651.800  1064.000   652.600  1066.300   655.900  1090.900   673.000  1267.400
```

```
49080.000     21.000  1009.900  1078.100   265.000   265.000   265.000      .000      .000      .000
  660.100    728.000   660.800   754.800   659.100   839.900   657.700   860.000   657.200   967.900
  656.900   1000.000   656.100  1009.900   652.600  1019.100   651.700  1020.900   650.900  1026.000
  650.200   1032.000   650.100  1040.000   650.600  1049.000   650.800  1049.900   651.700  1052.200
  654.000   1078.100   654.400  1089.100   653.200  1100.000   653.700  1162.100   656.900  1210.000
  673.700   1308.800      .000      .000      .000      .000      .000      .000      .000      .000

     .030       .030      .035      .000      .000      .000      .000      .000      .000      .000
49300.000     30.000  1005.600  1053.100   220.000   220.000   220.000      .000      .000      .000
  660.500    725.000   660.500   725.100   660.500   725.200   658.600   740.900   658.600   741.000
  659.100    815.900   659.400   855.000   658.100   918.800   655.800   967.700   655.200   999.900
  655.000   1005.600   652.800  1011.800   651.800  1014.900   650.800  1019.900   650.300  1024.700
  650.100   1034.800   650.300  1041.900   650.900  1048.800   651.800  1051.600   652.500  1053.100
  653.600   1070.000   653.600  1076.700   656.600  1084.600   656.300  1140.700   654.000  1147.900
  655.000   1187.600   659.800  1297.900   657.900  1319.900   659.400  1379.900   661.000  1478.800

49680.000     18.000  1017.400  1045.300   380.000   380.000   380.000      .000      .000      .000
  659.100    867.400   657.500   902.200   655.200   932.200   655.300   965.300   654.700  1000.300
  653.800   1017.400   651.800  1021.400   650.800  1024.200   649.800  1029.200   649.900  1035.000
  650.700   1039.200   651.800  1042.200   652.900  1045.300   654.200  1055.400   655.700  1151.200
  656.700   1252.100   658.800  1355.100   660.200  1459.900      .000      .000      .000      .000

49980.000     21.000   999.900  1033.300   300.000   300.000   300.000      .000      .000      .000
   10.000       .000      .000      .000      .000      .000      .000      .000      .000      .000
  659.300    808.100   658.700   820.100   655.700   834.900   653.700   881.900   646.700   902.100
  647.300    974.800   653.500   994.600   653.500   999.900   653.100  1004.800   651.100  1008.700
  650.000   1013.800   649.800  1017.700   650.200  1022.000   651.900  1026.900   653.100  1029.900
  653.900   1033.300   656.000  1180.000   657.700  1219.800   658.800  1309.900   661.000  1410.000
  662.600   1504.300      .000      .000      .000      .000      .000      .000      .000      .000

     .030       .030      .040      .000      .000      .000      .000      .000      .000      .000
50320.000     21.000  1021.000  1050.300   340.000   340.000   340.000      .000      .000      .000
   10.000       .000      .000      .000      .000      .000      .000      .000      .000      .000
  661.600    822.000   655.300   884.900   656.600   950.800   656.500   999.800   655.600  1017.800
  654.900   1021.000   654.600  1021.000   653.200  1023.000   651.100  1025.900   649.900  1032.200
  650.100   1036.000   650.600  1042.000   652.000  1045.000   653.100  1050.100   655.000  1050.200
  655.700   1050.300   653.100  1076.100   653.400  1112.100   655.400  1220.000   658.900  1290.000
  661.000   1334.600      .000      .000      .000      .000      .000      .000      .000      .000

50560.000     22.000  1030.200  1096.500   260.000   220.000   240.000      .000      .000      .000
  660.000    720.200   659.700   870.100   659.600   894.300   659.600   908.000   658.100   960.100
  660.300    977.200   656.800  1000.200   655.800  1030.200   653.100  1042.500   651.100  1045.200
  650.800   1050.100   650.300  1057.300   650.200  1062.100   651.200  1075.100   653.000  1085.100
  655.100   1096.500   655.200  1191.200   654.700  1219.000   656.200  1270.200   659.100  1325.200
  661.900   1419.600   661.900  1419.600      .000      .000      .000      .000      .000      .000

     .000       .000      .000      .300      .500      .000      .000      .000      .000      .000
50585.000       .000      .000      .000    25.000    25.000    25.000      .000      .000      .000
```

```
        S-290**DIANA COURT**SS 79+07.28
X1  50685.000    46.000  1372.000  1392.000   100.000   100.000   100.000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   655.800   655.800      .000
GR    660.200  1000.000   660.100  1080.000   659.200  1190.000   659.000  1221.000   656.800  1255.000
GR    656.700  1290.000   656.200  1365.000   651.000  1372.000   650.000  1372.300   649.700  1372.500
GR    649.300  1373.000   649.100  1373.500   649.000  1374.000   649.100  1374.500   649.300  1375.000
GR    649.700  1375.500   650.000  1375.800   651.000  1376.000   651.000  1380.000   650.000  1380.300
GR    649.700  1380.500   649.300  1381.000   649.100  1381.500   649.000  1382.000   649.100  1382.500
GR    649.300  1383.000   649.700  1383.500   650.000  1383.800   651.000  1384.000   651.000  1388.000
GR    650.000  1388.300   649.700  1388.500   649.300  1389.000   649.100  1389.500   649.000  1390.000
GR    649.100  1390.500   649.300  1391.000   649.700  1391.500   650.000  1391.800   651.000  1392.000
GR    656.200  1395.000   657.100  1398.000   658.600  1443.000   659.000  1478.000   659.300  1510.000
GR    659.600  1610.000      .000      .000      .000      .000      .000      .000      .000      .000

NC       .000      .000      .015      .000      .000      .000      .000      .000      .000      .000
X1  50690.000      .000      .000      .000     5.000     5.000     5.000      .000      .000      .000
BT    -46.000  1000.000   660.200   660.200  1080.000   660.100   660.100  1190.000   659.200   659.200
BT       .000  1221.000   659.000   659.000  1255.000   658.800   656.800  1290.000   658.800   656.700
BT       .000  1365.000   658.600   656.200  1372.000   658.500   651.000  1372.300   658.500   652.050
BT       .000  1372.500   658.500   652.350  1373.000   658.500   652.700  1373.500   658.500   652.900
BT       .000  1374.000   658.500   653.000  1374.500   658.500   652.900  1375.000   658.500   652.700
BT       .000  1375.500   658.500   652.350  1375.800   658.500   652.050  1376.000   658.500   651.000
BT       .000  1380.000   658.500   651.000  1380.300   658.500   652.050  1380.500   658.500   652.350
BT       .000  1381.000   658.500   652.700  1381.500   658.500   652.900  1382.000   658.500   653.000
BT       .000  1382.500   658.500   652.900  1383.000   658.500   652.700  1383.500   658.500   652.350
BT       .000  1383.800   658.500   652.050  1384.000   658.500   651.000  1388.000   658.500   651.000
BT       .000  1388.300   658.500   652.050  1388.500   658.500   652.350  1389.000   658.500   652.700
BT       .000  1389.500   658.500   652.900  1390.000   658.500   653.000  1390.500   658.500   652.900
BT       .000  1391.000   658.500   652.700  1391.500   658.500   652.350  1391.800   658.500   652.050
BT       .000  1392.000   658.500   651.000  1395.000   658.500   656.200  1398.000   658.500   657.100
BT       .000  1443.000   658.600   658.600  1478.000   659.000   659.000  1510.000   659.300   659.300
BT       .000  1610.000   659.600   659.600      .000      .000      .000      .000      .000      .000

X1  50730.000      .000      .000      .000    40.000    40.000    40.000      .000      .000      .000
X2       .000      .000      .000      .000      .000      .000     1.000      .000      .000      .000

NC       .000      .000      .040      .000      .000      .000      .000      .000      .000      .000
X1  50735.000    19.000  1110.000  1142.900     5.000     5.000     5.000      .000      .000      .000
X3     10.000      .000      .000      .000      .000      .000      .000   658.500   658.500      .000
GR    660.500   944.300   658.400   973.200   656.800  1000.400   656.700  1035.100   656.100  1110.000
GR    658.800  1114.100   658.900  1115.200   653.100  1115.300   649.200  1115.400   649.300  1124.600
GR    649.400  1129.900   649.500  1138.900   653.100  1139.100   659.000  1139.200   658.900  1139.900
GR    656.100  1140.000   657.000  1142.900   658.500  1187.700   659.000  1222.900      .000      .000

NC       .000      .000      .000      .100      .300      .000      .000      .000      .000      .000
X1  50785.000      .000      .000      .000    50.000    50.000    50.000      .000      .000      .000

NC       .035      .035      .070      .000      .000      .000      .000      .000      .000      .000
X1  51040.000    18.000  1042.800  1105.200   255.000   255.000   255.000      .000      .000      .000
X3       .000      .000      .000      .000      .000  1250.000      .000      .000      .000      .000
GR    660.100   964.100   658.300   986.100   657.200  1000.300   657.100  1006.800   656.000  1042.800
GR    653.200  1051.900   651.300  1052.800   650.700  1057.000   650.200  1061.900   650.300  1069.900
GR    651.200  1079.100   653.200  1082.000   654.400  1105.200   656.200  1194.800   657.200  1249.900
```

```
   658.100   1309.100    659.700   1411.800    663.000   1519.800       .000       .000   .    .000       .000

 51365.000     21.000    945.000    999.800    325.000    325.000    325.000       .000       .000       .000
      .000       .000       .000    800.000       .000   1050.000       .000       .000       .000       .000
   658.700    745.100    657.800    839.900    657.200    933.000    656.600    945.000    655.900    964.400
   656.200    964.500    656.200    965.900    653.300    965.900    648.900    966.000    649.100    969.900
   649.000    974.000    649.000    975.000    649.100    978.900    649.200    983.100    653.200    983.100
   656.200    983.200    656.200    984.400    656.000    984.400    656.600    999.800    656.300   1082.700
   656.100   1129.900       .000       .000       .000       .000       .000       .000       .000       .000
      .000       .000       .000       .000       .000       .000       .000       .000       .000       .000
```

```
                                                                                        THIS RUN EXECUTED 09-06-88
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION AUGUST 1985
**************************************************


T1      PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
T2      ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
T3      ADD5YR.DAT/OUT  HEC-1 FLOWS USED:  5-YEAR 12HR-DURATION

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -10.       3.        0.        0.   .000500       .00        .0        0.   616.000      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

      2.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000
```

E-64

```
                                                                 THIS RUN EXECUTED 09-06-88
***************************************************
HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
ERROR CORR -  01,02,03,04,05,06
MODIFICATION -  50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985
***************************************************


1     PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
2     ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
3     A0010YR.DAT/OUT  HEC-1 FLOWS USED: 10-YEAR 12HR-DURATION

1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

   -10.       4.        0.        0.    .000500      .00        .0        0.   617.800     .000

2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

    3.000      .000   -1.000      .000      .000      .000      .000      .000      .000      .000
```

```
1
 09-06-88     11:52:03                                                                                      PAGE   5c




                                                                                THIS RUN EXECUTED 09-06-88
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION AUGUST 1985
*****************************************************


T1      PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
T2      ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
T3      ADD25YR.DAT/OUT  HEC-1 FLOWS USED: 25-YEAR 12HR-DURATION

J1  ICHECK    INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -10.       5.        0.        0.   .000500       .00        .0        0.   617.800      .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     4.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000
```

```
                                                                              THIS RUN EXECUTED 09-06-88
*********************************************
EC2 RELEASE DATED NOV 76 UPDATED MAY  1984
RROR CORR -  01,02,03,04,05,06
ODIFICATION -  50,51,52,53,54,55,56
BM-PC-XT VERSION AUGUST 1985
*********************************************


    PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
    ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
    ADD50YR.DAT/OUT  HEC-1 FLOWS USED: 50-YEAR 12/24HR-DURATION

 ICHECK    INQ      NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

  -10.       6.       0.        0.    .000500      .00        .0        0.   617.800     .000

 NPROF     IPLOT    PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

   5.000     .000   -1.000     .000      .000      .000      .000      .000      .000      .000
```

E-67

```
                                                                                     THIS RUN EXECUTED 09-06-88
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
  ERROR CORR -  01,02,03,04,05,06
  MODIFICATION -  50,51,52,53,54,55,56
  IBM-PC-XT VERSION AUGUST 1985
**************************************************


T1      PREPARED BY DONOHUE CO. FOR THE ILLINOIS DIVISION OF WATER RESOURCES
T2      ADDISON CREEK STORMWATER MANAGEMENT SYSTEM-HYDRAULIC ANALYSIS
T3      ADD100YR.DAT/OUT  HEC-1 FLOWS USED:100-YEAR 12/24/48HR-DURATION

J1  ICHECK    INQ       NINV      IDIR      STRT      METRIC    HVINS     Q         WSEL      FQ

     -10.        7.        0.        0.   .000500      .00        .0        0.   619.400     .000

J2  NPROF     IPLOT     PRFVS     XSECV     XSECH     FN        ALLDC     IBW       CHNIM     ITRACE

     15.000      .000    -1.000      .000      .000      .000      .000      .000      .000      .000
```

```
-06-88     11:52:03                                                                                    PAGE  59



                                                                         THIS RUN EXECUTED 09-06-88

**********************************************
IEC2 RELEASE DATED NOV 76 UPDATED MAY  1984
IRROR CORR -  01,02,03,04,05,06
IODIFICATION -  50,51,52,53,54,55,56
IBM-PC-XT VERSION AUGUST 1985
**********************************************


TE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST


DALLYR.DAT/OUT  HEC-1

IMARY PRINTOUT TABLE  150


   SECNO     XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL    CRIWS      EG      10K*S      VCH     AREA      .01K

     .000      .00      .00      .00    607.20   980.00   615.67      .00    615.70     5.05      1.46    757.19    436.06
     .000      .00      .00      .00    607.20  1381.00   616.62      .00    616.65     5.02      1.59    963.84    616.25
     .000      .00      .00      .00    607.20  1508.00   616.90      .00    616.94     4.98      1.62   1025.81    676.04
     .000      .00      .00      .00    607.20  1810.00   617.50      .00    617.54     4.98      1.70   1157.11    810.76
     .000      .00      .00      .00    607.20  2137.00   618.06      .00    618.10     5.08      1.79   1281.49    947.85
     .000      .00      .00      .00    607.20  2587.00   618.85      .00    618.90     4.99      1.87   1458.91   1158.25

  200.000   200.00      .00      .00    607.20   980.00   615.77      .00    615.79     4.67      1.42    779.04    453.63
  200.000   200.00      .00      .00    607.20  1381.00   616.72      .00    616.75     4.70      1.55    985.80    637.15
  200.000   200.00      .00      .00    607.20  1508.00   617.00      .00    617.03     4.67      1.58   1047.64    697.70
  200.000   200.00      .00      .00    607.20  1810.00   617.60      .00    617.63     4.71      1.66   1179.14    834.38
  200.000   200.00      .00      .00    607.20  2137.00   618.16      .00    618.20     4.82      1.75   1304.09    973.70
  200.000   200.00      .00      .00    607.20  2587.00   618.95      .00    619.00     4.76      1.84   1481.30   1185.99

  440.000   240.00      .00      .00    607.30   980.00   615.89      .00    615.93     6.84      1.74    603.58    374.84
  440.000   240.00      .00      .00    607.30  1381.00   616.84      .00    616.89     6.48      1.87    905.05    542.66
  440.000   240.00      .00      .00    607.30  1508.00   617.12      .00    617.16     6.12      1.87   1015.23    609.42
  440.000   240.00      .00      .00    607.30  1810.00   617.71      .00    617.76     5.38      1.85   1271.04    780.02
  440.000   240.00      .00      .00    607.30  2137.00   618.28      .00    618.32     4.83      1.84   1515.27    972.30
  440.000   240.00      .00      .00    607.30  2587.00   619.07      .00    619.11     4.05      1.79   1859.96   1285.71

  755.000   315.00      .00      .00    606.90   980.00   616.12      .00    616.17     7.75      1.86    583.27    351.96
  755.000   315.00      .00      .00    606.90  1381.00   617.05      .00    617.09     6.03      1.77    858.42    562.44
  755.000   315.00      .00      .00    606.90  1508.00   617.31      .00    617.36     5.56      1.73    942.21    639.65
  755.000   315.00      .00      .00    606.90  1810.00   617.88      .00    617.92     4.82      1.68   1123.19    824.14
  755.000   315.00      .00      .00    606.90  2137.00   618.43      .00    618.47     4.28      1.64   1306.55   1032.82
  755.000   315.00      .00      .00    606.90  2587.00   619.19      .00    619.23     3.52      1.58   1575.96   1378.68

 1165.000   410.00      .00      .00    608.50   980.00   616.54      .00    616.65    17.18      2.66    660.45    236.46
 1165.000   410.00      .00      .00    608.50  1381.00   617.40      .00    617.56    22.22      3.24    879.89    292.96
 1165.000   410.00      .00      .00    608.50  1508.00   617.64      .00    617.82    23.49      3.40    946.88    311.17
 1165.000   410.00      .00      .00    608.50  1810.00   618.16      .00    618.38    26.47      3.77   1092.26    351.80
 1165.000   410.00      .00      .00    608.50  2137.00   618.65      .00    618.92    29.64      4.16   1232.45    392.54
 1165.000   410.00      .00      .00    608.50  2587.00   619.33      .00    619.66    32.67      4.59   1434.17    452.60
```

```
  SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG       10K*S      VCH       AREA     .01

 1400.000   235.00      .00       .00      608.50    980.00    616.92       .00     617.02     14.34      2.50     392.50    258.
 1400.000   235.00      .00       .00      608.50   1381.00    617.80       .00     617.86      6.91      1.87     707.39    525.
 1400.000   235.00      .00       .00      608.50   1508.00    618.06       .00     618.13      6.89      1.91     750.35    574.
 1400.000   235.00      .00       .00      608.50   1810.00    618.63       .00     618.71      6.89      2.00     843.95    689.
 1400.000   235.00      .00       .00      608.50   2137.00    619.18       .00     619.27      6.94      2.09     935.05    811.
 1400.000   235.00      .00       .00      608.50   2587.00    619.93       .00     620.03      6.70      2.17    1084.35    999.

 1500.000   100.00      .00       .00      609.30    980.00    617.07       .00     617.15     10.16      2.13     459.19    307.
 1500.000   100.00      .00       .00      609.30   1381.00    617.87       .00     617.98     13.91      2.64     523.25    370.
 1500.000   100.00      .00       .00      609.30   1508.00    618.13       .00     618.25     14.78      2.77     544.95    392.
 1500.000   100.00      .00       .00      609.30   1810.00    618.70       .00     618.84     16.76      3.05     593.13    442.
 1500.000   100.00      .00       .00      609.30   2137.00    619.25       .00     619.42     18.76      3.33     641.22    493.
 1500.000   100.00      .00       .00      609.30   2587.00    619.98       .00     620.19     20.83      3.65     707.96    566.

 1550.000    50.00    624.60    622.70     609.30    980.00    617.08       .00     617.15     10.15      2.13     459.30    307.
 1550.000    50.00    624.60    622.70     609.30   1381.00    617.88       .00     617.99     13.86      2.64     523.92    370.
 1550.000    50.00    624.60    622.70     609.30   1508.00    618.14       .00     618.26     14.72      2.76     545.69    393.
 1550.000    50.00    624.60    622.70     609.30   1810.00    618.71       .00     618.85     16.69      3.05     594.07    443.
 1550.000    50.00    624.60    622.70     609.30   2137.00    619.26       .00     619.43     18.67      3.33     642.38    494.
 1550.000    50.00    624.60    622.70     609.30   2587.00    620.00       .00     620.21     20.71      3.65     709.40    568.

 1600.000    50.00      .00       .00      608.40    980.00    617.12       .00     617.22     13.52      2.54     386.06    266.
 1600.000    50.00      .00       .00      608.40   1381.00    617.94       .00     618.09     19.02      3.16     436.64    316.
 1600.000    50.00      .00       .00      608.40   1508.00    618.20       .00     618.37     20.38      3.32     453.64    334.
 1600.000    50.00      .00       .00      608.40   1810.00    618.78       .00     618.99     23.50      3.68     491.44    373.
 1600.000    50.00      .00       .00      608.40   2137.00    619.33       .00     619.58     26.79      4.04     528.34    412.
 1600.000    50.00      .00       .00      608.40   2587.00    620.07       .00     620.38     29.68      4.45     586.49    474.

 1985.000   385.00      .00       .00      608.40    980.00    617.61       .00     617.70     11.00      2.36     415.56    295.
 1985.000   385.00      .00       .00      608.40   1381.00    618.61       .00     618.74     14.61      2.88     479.91    361.
 1985.000   385.00      .00       .00      608.40   1508.00    618.92       .00     619.06     15.49      3.01     500.64    383.
 1985.000   385.00      .00       .00      608.40   1810.00    619.60       .00     619.77     17.40      3.31     547.29    433.
 1985.000   385.00      .00       .00      608.40   2137.00    620.26       .00     620.46     18.71      3.58     604.54    494.
 1985.000   385.00      .00       .00      608.40   2587.00    621.08       .00     621.30     18.85      3.83     731.24    595

 2115.000   130.00      .00       .00      608.60    980.00    617.75       .00     617.84     11.23      2.38     412.47    292
 2115.000   130.00      .00       .00      608.60   1381.00    618.80       .00     618.93     14.67      2.88     479.25    360
 2115.000   130.00      .00       .00      608.60   1508.00    619.12       .00     619.26     15.48      3.01     500.74    383
 2115.000   130.00      .00       .00      608.60   1810.00    619.83       .00     620.00     17.22      3.30     549.26    436
 2115.000   130.00      .00       .00      608.60   2137.00    620.50       .00     620.70     18.35      3.56     609.05    498
 2115.000   130.00      .00       .00      608.60   2587.00    621.33       .00     621.55     18.43      3.80     709.39    602

 2215.000   100.00      .00       .00      609.40    980.00    617.87       .00     617.96     11.98      2.34     419.02    283
 2215.000   100.00      .00       .00      609.40   1381.00    618.96       .00     619.08     15.02      2.77     499.12    356
 2215.000   100.00      .00       .00      609.40   1508.00    619.29       .00     619.42     15.50      2.87     524.64    383
 2215.000   100.00      .00       .00      609.40   1810.00    620.02       .00     620.17     16.38      3.11     581.35    447
 2215.000   100.00      .00       .00      609.40   2137.00    620.71       .00     620.88     17.38      3.36     635.61    512
 2215.000   100.00      .00       .00      609.40   2587.00    621.52       .00     621.73     18.49      3.69     700.84    601
```

```
ECNO      XLCH     ELTRD     ELLC     ELMIN       Q       CWSEL     CRIWS      EG      10K*S      VCH     AREA      .01K

5.000     50.00    622.00   621.00   609.40    980.00    617.88      .00    617.97     11.89     2.33    420.28    284.20
5.000     50.00    622.00   621.00   609.40   1381.00    618.98      .00    619.09     14.88     2.76    500.72    357.97
5.000     50.00    622.00   621.00   609.40   1508.00    619.31      .00    619.44     15.35     2.86    526.39    384.87
5.000     50.00    622.00   621.00   609.40   1810.00    620.04      .00    620.19     16.20     3.10    583.39    449.63
5.000     50.00    622.00   621.00   609.40   2137.00    620.73      .00    620.90     17.18     3.35    637.91    515.60
5.000     50.00    622.00   621.00   609.40   2587.00    621.75      .00    621.95     16.94     3.60    719.45    628.58

5.000     50.00       .00      .00   609.00    980.00    617.93      .00    618.05     13.70     2.77    354.07    264.81
5.000     50.00       .00      .00   609.00   1381.00    619.03      .00    619.20     17.32     3.32    416.26    331.79
5.000     50.00       .00      .00   609.00   1508.00    619.36      .00    619.55     18.17     3.46    435.98    353.80
5.000     50.00       .00      .00   609.00   1810.00    620.09      .00    620.31     19.87     3.77    481.11    406.05
5.000     50.00       .00      .00   609.00   2137.00    620.78      .00    621.03     20.90     4.05    534.58    467.50
5.000     50.00       .00      .00   609.00   2587.00    621.81      .00    622.08     20.45     4.26    615.44    572.05

0.000    275.00       .00      .00   609.40    980.00    618.31      .00    618.43     13.87     2.78    352.51    263.17
0.000    275.00       .00      .00   609.40   1381.00    619.50      .00    619.67     16.84     3.28    420.57    336.57
0.000    275.00       .00      .00   609.40   1508.00    619.86      .00    620.04     17.52     3.41    441.70    360.25
0.000    275.00       .00      .00   609.40   1810.00    620.63      .00    620.84     18.78     3.70    491.67    417.71
0.000    275.00       .00      .00   609.40   2137.00    621.35      .00    621.59     19.52     3.95    547.79    483.70
0.000    275.00       .00      .00   609.40   2587.00    622.36      .00    622.63     19.27     4.17    628.02    589.36

5.000    475.00       .00      .00   609.50    980.00    618.86      .00    618.93      8.57     2.21    436.64    334.68
5.000    475.00       .00      .00   609.50   1381.00    620.16      .00    620.26      9.63     2.53    544.39    445.04
5.000    475.00       .00      .00   609.50   1508.00    620.54      .00    620.65      9.84     2.61    578.21    480.73
5.000    475.00       .00      .00   609.50   1810.00    621.37      .00    621.49     10.31     2.79    667.34    563.67
5.000    475.00       .00      .00   609.50   2137.00    622.13      .00    622.26     10.58     2.93    851.95    657.10
5.000    475.00       .00      .00   609.50   2587.00    623.13      .00    623.26      9.50     2.96   1206.62    839.31

0.000    295.00       .00      .00   609.20    919.00    619.13      .00    619.20      9.67     2.16    426.13    295.49
0.000    295.00       .00      .00   609.20   1291.00    620.47      .00    620.56     11.07     2.49    518.45    387.96
0.000    295.00       .00      .00   609.20   1419.00    620.86      .00    620.96     11.55     2.60    546.65    417.45
0.000    295.00       .00      .00   609.20   1687.00    621.70      .00    621.82     12.09     2.77    609.64    485.24
0.000    295.00       .00      .00   609.20   1991.00    622.47      .00    622.60     12.99     2.97    669.89    552.42
0.000    295.00       .00      .00   609.20   2400.00    623.44      .00    623.59     13.34     3.20    753.44    657.03

0.000    300.00       .00      .00   609.80    919.00    619.41      .00    619.48      8.96     2.13    430.48    306.99
0.000    300.00       .00      .00   609.80   1291.00    620.79      .00    620.89     10.28     2.47    522.45    402.60
0.000    300.00       .00      .00   609.80   1419.00    621.19      .00    621.30     10.72     2.58    550.80    433.36
0.000    300.00       .00      .00   609.80   1687.00    622.05      .00    622.17     11.28     2.75    612.59    502.32
0.000    300.00       .00      .00   609.80   1991.00    622.84      .00    622.98     12.01     2.96    672.40    574.48
0.000    300.00       .00      .00   609.80   2400.00    623.82      .00    623.98     12.38     3.19    760.23    682.08

05.000   245.00       .00      .00   608.70    919.00    619.63      .00    619.69      8.18     2.07    443.10    321.33
05.000   245.00       .00      .00   608.70   1291.00    621.04      .00    621.13      9.53     2.40    536.98    418.12
05.000   245.00       .00      .00   608.70   1419.00    621.45      .00    621.55      9.98     2.51    565.97    449.27
05.000   245.00       .00      .00   608.70   1687.00    622.32      .00    622.43     10.57     2.68    629.11    518.97
05.000   245.00       .00      .00   608.70   1991.00    623.13      .00    623.26     11.06     2.88    697.40    598.75
05.000   245.00       .00      .00   608.70   2400.00    624.12      .00    624.27     10.87     3.05    805.81    728.08
```

```
     SECNO     XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL    CRIWS      EG      10K*S     VCH      AREA     .01

  4115.000   210.00     .00       .00     609.40    919.00   619.80     .00    619.85     6.86     1.83    502.18   350.
  4115.000   210.00     .00       .00     609.40   1291.00   621.24     .00    621.31     7.57     2.09    617.67   469.
  4115.000   210.00     .00       .00     609.40   1419.00   621.66     .00    621.74     7.81     2.17    653.38   507.
  4115.000   210.00     .00       .00     609.40   1687.00   622.55     .00    622.63     8.05     2.31    730.69   594.
  4115.000   210.00     .00       .00     609.40   1991.00   623.37     .00    623.46     8.28     2.46    816.39   692.
  4115.000   210.00     .00       .00     609.40   2400.00   624.36     .00    624.47     8.25     2.60    939.15   835

  4355.000   240.00     .00       .00     609.90    919.00   619.96     .00    620.01     6.27     1.78    515.65   366
  4355.000   240.00     .00       .00     609.90   1291.00   621.42     .00    621.48     6.92     2.04    633.76   490
  4355.000   240.00     .00       .00     609.90   1419.00   621.85     .00    621.92     7.14     2.12    670.54   531
  4355.000   240.00     .00       .00     609.90   1687.00   622.74     .00    622.81     7.29     2.25    749.73   624
  4355.000   240.00     .00       .00     609.90   1991.00   623.56     .00    623.65     7.51     2.41    830.26   726
  4355.000   240.00     .00       .00     609.90   2400.00   624.55     .00    624.66     7.53     2.59    939.14   874

  4590.000   235.00     .00       .00     610.00    919.00   620.11     .00    620.17     7.01     1.91    480.26   347
  4590.000   235.00     .00       .00     610.00   1291.00   621.58     .00    621.66     7.73     2.19    589.23   464
  4590.000   235.00     .00       .00     610.00   1419.00   622.02     .00    622.10     7.99     2.28    622.83   502
  4590.000   235.00     .00       .00     610.00   1687.00   622.91     .00    623.00     8.33     2.43    693.92   584
  4590.000   235.00     .00       .00     610.00   1991.00   623.74     .00    623.85     8.90     2.61    762.70   667
  4590.000   235.00     .00       .00     610.00   2400.00   624.74     .00    624.86     9.35     2.83    853.61   784

  4945.000   355.00     .00       .00     610.30    919.00   620.38     .00    620.44     8.41     2.04    450.44   316
  4945.000   355.00     .00       .00     610.30   1291.00   621.87     .00    621.96     9.03     2.31    558.91   429
  4945.000   355.00     .00       .00     610.30   1419.00   622.32     .00    622.40     9.25     2.39    592.63   466
  4945.000   355.00     .00       .00     610.30   1687.00   623.22     .00    623.32     9.53     2.54    663.76   546
  4945.000   355.00     .00       .00     610.30   1991.00   624.07     .00    624.18     9.90     2.71    735.92   632
  4945.000   355.00     .00       .00     610.30   2400.00   625.08     .00    625.20     9.96     2.89    851.35   760

  5230.000   285.00     .00       .00     611.00    919.00   620.60     .00    620.65     6.53     1.80    510.41   359
  5230.000   285.00     .00       .00     611.00   1291.00   622.12     .00    622.18     6.90     2.03    637.43   491
  5230.000   285.00     .00       .00     611.00   1419.00   622.57     .00    622.64     7.04     2.10    677.15   534
  5230.000   285.00     .00       .00     611.00   1687.00   623.48     .00    623.56     7.20     2.22    760.66   628
  5230.000   285.00     .00       .00     611.00   1991.00   624.35     .00    624.43     7.53     2.36    843.37   725
  5230.000   285.00     .00       .00     611.00   2400.00   625.36     .00    625.46     8.00     2.54    944.47   948

  5465.000   235.00     .00       .00     611.00    919.00   620.75     .00    620.80     6.11     1.76    522.82   371
  5465.000   235.00     .00       .00     611.00   1291.00   622.28     .00    622.34     6.49     1.98    651.70   506
  5465.000   235.00     .00       .00     611.00   1419.00   622.73     .00    622.80     6.63     2.05    692.07   551
  5465.000   235.00     .00       .00     611.00   1687.00   623.65     .00    623.72     6.79     2.17    776.69   647
  5465.000   235.00     .00       .00     611.00   1991.00   624.52     .00    624.61     7.11     2.31    860.93   746
  5465.000   235.00     .00       .00     611.00   2400.00   625.55     .00    625.64     7.55     2.49    964.15   873

  5565.000   100.00     .00       .00     611.60    919.00   620.81     .00    620.84     2.50     1.44    638.59   581
  5565.000   100.00     .00       .00     611.60   1291.00   622.34     .00    622.39     2.92     1.73    747.12   755
  5565.000   100.00     .00       .00     611.60   1419.00   622.79     .00    622.84     3.06     1.82    779.39   810
  5565.000   100.00     .00       .00     611.60   1687.00   623.71     .00    623.77     3.31     2.00    844.62   926
  5565.000   100.00     .00       .00     611.60   1991.00   624.58     .00    624.66     3.65     2.20    906.42  1042
  5565.000   100.00     .00       .00     611.60   2400.00   625.64     .00    625.69     1.69     1.58   1372.95  1845
```

```
SECNO      XLCH     ELTRD     ELLC     ELMIN        Q     CWSEL     CRIWS       EG     10K*S       VCH      AREA      .01K

75.000    110.00    626.50   624.00    611.60    919.00   620.81       .00   620.84      2.50      1.44    638.27    581.17
75.000    110.00    626.50   624.00    611.60   1291.00   622.34       .00   622.39      2.92      1.73    746.79    755.04
75.000    110.00    626.50   624.00    611.60   1419.00   622.79       .00   622.85      3.07      1.82    779.02    810.12
75.000    110.00    626.50   624.00    611.60   1687.00   623.71       .00   623.77      3.32      2.00    844.11    926.05
75.000    110.00    626.50   624.00    611.60   1991.00   624.66       .00   624.73      3.58      2.18    911.44   1052.40
75.000    110.00    626.50   624.00    611.60   2400.00   625.76       .00   625.86      3.95      2.42    989.89   1207.67

85.000    110.00       .00      .00    611.00    919.00   620.84       .00   620.90      6.66      1.87    491.22    356.16
85.000    110.00       .00      .00    611.00   1291.00   622.38       .00   622.45      7.30      2.12    607.63    477.77
85.000    110.00       .00      .00    611.00   1419.00   622.83       .00   622.91      7.51      2.20    644.21    517.77
85.000    110.00       .00      .00    611.00   1687.00   623.75       .00   623.84      7.80      2.34    720.83    604.10
85.000    110.00       .00      .00    611.00   1991.00   624.71       .00   624.80      8.06      2.48    817.44    701.51
85.000    110.00       .00      .00    611.00   2400.00   625.82       .00   625.92      7.99      2.62   1014.73    848.99

05.000    120.00       .00      .00    611.00    919.00   620.92       .00   620.98      6.43      1.85    497.30    362.29
05.000    120.00       .00      .00    611.00   1291.00   622.47       .00   622.53      7.06      2.10    614.96    485.72
05.000    120.00       .00      .00    611.00   1419.00   622.92       .00   623.00      7.27      2.18    651.97    526.36
05.000    120.00       .00      .00    611.00   1687.00   623.85       .00   623.93      7.55      2.31    729.38    613.93
05.000    120.00       .00      .00    611.00   1991.00   624.80       .00   624.90      7.78      2.45    830.71    713.72
05.000    120.00       .00      .00    611.00   2400.00   625.92       .00   626.02      7.72      2.58   1037.60    863.64

40.000    335.00       .00      .00    611.20    919.00   621.14       .00   621.19      6.32      1.86    495.21    365.47
40.000    335.00       .00      .00    611.20   1291.00   622.70       .00   622.77      6.92      2.10    613.39    490.79
40.000    335.00       .00      .00    611.20   1419.00   623.16       .00   623.24      7.11      2.18    650.61    532.09
40.000    335.00       .00      .00    611.20   1687.00   624.10       .00   624.18      7.39      2.32    728.10    620.69
40.000    335.00       .00      .00    611.20   1991.00   625.06       .00   625.15      7.64      2.45    812.04    720.35
40.000    335.00       .00      .00    611.20   2400.00   626.17       .00   626.28      7.99      2.63    914.44    849.27

30.000    490.00       .00      .00    611.60    919.00   621.43       .00   621.50      6.08      2.17    422.01    372.56
30.000    490.00       .00      .00    611.60   1291.00   623.00       .00   623.10      6.19      2.44    521.77    518.91
30.000    490.00       .00      .00    611.60   1419.00   623.47       .00   623.57      6.24      2.52    553.11    568.26
30.000    490.00       .00      .00    611.60   1687.00   624.41       .00   624.52      6.24      2.67    617.93    675.12
30.000    490.00       .00      .00    611.60   1991.00   625.37       .00   625.50      6.24      2.81    687.34    797.25
30.000    490.00       .00      .00    611.60   2400.00   626.49       .00   626.64      6.28      2.98    787.57    957.87

65.000     35.00       .00      .00    611.60    919.00   621.45       .00   621.52      6.76      2.29    423.33    353.35
65.000     35.00       .00      .00    611.60   1291.00   623.02       .00   623.12      7.20      2.63    523.28    480.99
65.000     35.00       .00      .00    611.60   1419.00   623.49       .00   623.60      7.36      2.74    554.69    523.17
65.000     35.00       .00      .00    611.60   1687.00   624.43       .00   624.55      7.57      2.94    619.62    613.27
65.000     35.00       .00      .00    611.60   1991.00   625.39       .00   625.53      7.76      3.14    689.64    714.50
65.000     35.00       .00      .00    611.60   2400.00   626.51       .00   626.67      8.07      3.38    775.22    844.95

65.000    100.00       .00      .00    613.40    919.00   621.53       .00   621.64     15.95      2.69    341.46    230.11
65.000    100.00       .00      .00    613.40   1291.00   623.10       .00   623.24     15.08      2.99    432.34    332.48
65.000    100.00       .00      .00    613.40   1419.00   623.57       .00   623.72     14.86      3.09    459.61    368.16
65.000    100.00       .00      .00    613.40   1687.00   624.51       .00   624.67     14.06      3.24    535.17    449.83
65.000    100.00       .00      .00    613.40   1991.00   625.48       .00   625.64     12.79      3.31    660.97    556.71
65.000    100.00       .00      .00    613.40   2400.00   626.61       .00   626.77     11.40      3.36    808.62    710.93
```

```
    SECNO       XLCH      ELTRD      ELLC      ELMIN        Q       CWSEL     CRIWS        EG      10K*S       VCH       AREA

  6895.000     30.00     624.40     622.40     613.40     919.00    621.53       .00     621.64     15.88      2.69     341.95    23
  6895.000     30.00     624.40     622.40     613.40    1291.00    623.24       .00     623.37     14.15      2.93     440.70    34
  6895.000     30.00     624.40     622.40     613.40    1419.00    623.76       .00     623.90     13.72      3.01     470.73    38
  6895.000     30.00     624.40     622.40     613.40    1687.00    624.80       .00     624.95     12.37      3.10     573.84    47
  6895.000     30.00     624.40     622.40     613.40    1991.00    625.75       .00     625.90     11.28      3.17     697.99    59
  6895.000     30.00     624.40     622.40     613.40    2400.00    626.85       .00     626.99     10.33      3.24     839.76    74

  6925.000     30.00        .00        .00     611.60     919.00    621.59       .00     621.68     10.23      2.47     390.13    28
  6925.000     30.00        .00        .00     611.60    1291.00    623.31       .00     623.42      9.97      2.68     503.15    40
  6925.000     30.00        .00        .00     611.60    1419.00    623.83       .00     623.94      9.92      2.74     539.16    45
  6925.000     30.00        .00        .00     611.60    1687.00    624.87       .00     624.99      9.71      2.84     679.10    54
  6925.000     30.00        .00        .00     611.60    1991.00    625.81       .00     625.94      9.84      2.98     945.51    63
  6925.000     30.00        .00        .00     611.60    2400.00    626.88       .00     627.03      9.79      3.14    1302.39    76

  7100.000    175.00        .00        .00     612.14     864.00    621.77       .00     621.85      8.35      2.28     385.81    29
  7100.000    175.00        .00        .00     612.14    1217.00    623.48       .00     623.58      8.72      2.58     482.58    41
  7100.000    175.00        .00        .00     612.14    1369.00    624.00       .00     624.11      9.22      2.72     513.47    45
  7100.000    175.00        .00        .00     612.14    1629.00    625.03       .00     625.16      9.23      2.88     578.00    53
  7100.000    175.00        .00        .00     612.14    1871.00    625.97       .00     626.10      8.86      2.98     646.31    62
  7100.000    175.00        .00        .00     612.14    2242.00    627.04       .00     627.20      9.03      3.20     728.10    74

  7320.000    220.00        .00        .00     612.70     864.00    621.86       .00     621.94      2.56      2.25     383.17    54
  7320.000    220.00        .00        .00     612.70    1217.00    623.58       .00     623.67      2.41      2.50     534.53    78
  7320.000    220.00        .00        .00     612.70    1369.00    624.10       .00     624.21      2.51      2.64     571.98    80
  7320.000    220.00        .00        .00     612.70    1629.00    625.14       .00     625.25      2.50      2.81     648.47   103
  7320.000    220.00        .00        .00     612.70    1871.00    626.07       .00     626.20      2.46      2.95     720.42   11
  7320.000    220.00        .00        .00     612.70    2242.00    627.15       .00     627.29      2.59      3.20     806.13   139

  7520.000    200.00     625.50     622.25     612.70     864.00    621.94       .00     622.02      2.48      2.23     386.99    54
  7520.000    200.00     625.50     622.25     612.70    1217.00    624.01       .00     624.11      2.26      2.49     488.43    80
  7520.000    200.00     625.50     622.25     612.70    1369.00    624.66       .00     624.77      2.32      2.63     520.37    89
  7520.000    200.00     625.50     622.25     612.70    1629.00    625.92       .00     626.02      1.95      2.60     708.19   116
  7520.000    200.00     625.50     622.25     612.70    1871.00    626.87       .00     626.98      1.95      2.74     783.74   134
  7520.000    200.00     625.50     622.25     612.70    2242.00    627.97       .00     628.10      2.07      2.98     874.19   155

  7580.000     60.00        .00        .00     612.29     864.00    621.99       .00     622.04      6.13      1.81     478.48    34
  7580.000     60.00        .00        .00     612.29    1217.00    624.08       .00     624.13      4.91      1.93     647.02    54
  7580.000     60.00        .00        .00     612.29    1369.00    624.73       .00     624.80      4.82      2.00     706.38    62
  7580.000     60.00        .00        .00     612.29    1629.00    625.97       .00     626.04      4.40      2.08     820.96    77
  7580.000     60.00        .00        .00     612.29    1871.00    626.93       .00     627.00      4.26      2.16     911.85    90
  7580.000     60.00        .00        .00     612.29    2242.00    628.04       .00     628.12      4.41      2.34    1017.13   106

  7725.000    145.00        .00        .00     612.00     864.00    622.08       .00     622.14      7.50      1.99     434.34    31
  7725.000    145.00        .00        .00     612.00    1217.00    624.15       .00     624.22      6.33      2.11     669.33    48
  7725.000    145.00        .00        .00     612.00    1369.00    624.80       .00     624.88      6.15      2.19     823.85    55
  7725.000    145.00        .00        .00     612.00    1629.00    626.03       .00     626.11      5.46      2.24    1122.39    69
  7725.000    145.00        .00        .00     612.00    1871.00    626.99       .00     627.07      5.17      2.32    1357.27    82
  7725.000    145.00        .00        .00     612.00    2242.00    628.10       .00     628.19      5.20      2.48    1633.06    98
```

```
CNO     XLCH     ELTRD     ELLC     ELMIN      Q        CWSEL     CRIWS     EG      10K*S     VCH     AREA     .01K

.000   520.00      .00      .00    612.70   864.00   622.48      .00   622.55     8.04    2.06   419.98   304.69
.000   520.00      .00      .00    612.70  1217.00   624.50      .00   624.57     7.27    2.20   689.86   451.29
.000   520.00      .00      .00    612.70  1369.00   625.15      .00   625.23     7.27    2.29   836.93   507.77
.000   520.00      .00      .00    612.70  1629.00   626.34      .00   626.43     6.89    2.37  1115.64   620.46
.000   520.00      .00      .00    612.70  1871.00   627.29      .00   627.38     6.81    2.47  1337.14   717.06
.000   520.00      .00      .00    612.70  2242.00   628.40      .00   628.51     7.12    2.65  1601.64   840.28

.000   395.00      .00      .00    613.90   864.00   622.89      .00   623.01    17.04    2.76   313.15   209.30
.000   395.00      .00      .00    613.90  1217.00   624.83      .00   624.92    10.85    2.59   612.26   369.41
.000   395.00      .00      .00    613.90  1369.00   625.47      .00   625.55     9.10    2.50   756.72   453.80
.000   395.00      .00      .00    613.90  1629.00   626.63      .00   626.70     6.48    2.30  1024.39   639.77
.000   395.00      .00      .00    613.90  1871.00   627.56      .00   627.62     5.29    2.21  1237.71   813.80
.000   395.00      .00      .00    613.90  2242.00   628.68      .00   628.74     4.55    2.20  1494.43  1050.97

.000   210.00      .00      .00    612.70   864.00   623.24      .00   623.33    13.30    2.38   367.65   236.89
.000   210.00      .00      .00    612.70  1217.00   625.05      .00   625.11     7.78    2.10   735.44   436.31
.000   210.00      .00      .00    612.70  1369.00   625.65      .00   625.71     6.43    1.99   910.52   539.84
.000   210.00      .00      .00    612.70  1629.00   626.76      .00   626.81     4.41    1.78  1243.37   775.34
.000   210.00      .00      .00    612.70  1871.00   627.67      .00   627.71     3.53    1.67  1509.42   995.99
.000   210.00      .00      .00    612.70  2242.00   628.77      .00   628.81     2.96    1.63  1836.24  1302.43

.000    50.00      .00      .00    612.80   864.00   623.31      .00   623.40    13.45    2.39   366.01   235.57
.000    50.00      .00      .00    612.80  1217.00   625.08      .00   625.17     9.97    2.37   516.57   385.49
.000    50.00      .00      .00    612.80  1369.00   625.67      .00   625.76     9.26    2.38   567.77   449.93
.000    50.00      .00      .00    612.80  1629.00   626.76      .00   626.86     7.82    2.35   662.06   582.50
.000    50.00      .00      .00    612.80  1871.00   627.66      .00   627.76     7.07    2.36   739.86   703.58
.000    50.00      .00      .00    612.80  2242.00   628.75      .00   628.87     6.74    2.44   834.86   863.81

0.000   100.00      .00      .00    614.10   864.00   623.46      .00   623.58    20.89    2.83   304.97   189.05
0.000   100.00      .00      .00    614.10  1217.00   625.19      .00   625.36    24.30    3.31   367.95   246.86
0.000   100.00      .00      .00    614.10  1369.00   625.77      .00   625.95    25.14    3.49   397.00   273.03
0.000   100.00      .00      .00    614.10  1629.00   626.85      .00   627.01    19.99    3.32   519.35   364.37
0.000   100.00      .00      .00    614.10  1871.00   627.74      .00   627.88    14.76    3.00   632.41   487.06
0.000   100.00      .00      .00    614.10  2242.00   628.83      .00   628.96    10.92    2.72   770.45   678.47

0.000   100.00   626.00   624.10    614.10   864.00   623.46      .00   623.58    20.84    2.83   305.21   189.27
0.000   100.00   626.00   624.10    614.10  1217.00   625.35      .00   625.51    23.06    3.26   373.31   253.45
0.000   100.00   626.00   624.10    614.10  1369.00   625.96      .00   626.15    24.04    3.46   395.65   279.23
0.000   100.00   626.00   624.10    614.10  1629.00   627.02      .00   627.16    17.94    3.18   540.43   384.62
0.000   100.00   626.00   624.10    614.10  1871.00   627.90      .00   628.03    13.31    2.87   652.89   512.78
0.000   100.00   626.00   624.10    614.10  2242.00   628.97      .00   629.10    10.08    2.63   788.25   706.06

0.000   100.00      .00      .00    612.00   864.00   623.66      .00   623.72     7.52    1.94   445.28   314.98
0.000   100.00      .00      .00    612.00  1217.00   625.59      .00   625.66     7.11    2.07   633.62   456.50
0.000   100.00      .00      .00    612.00  1369.00   626.23      .00   626.30     6.82    2.13   798.96   524.40
0.000   100.00      .00      .00    612.00  1629.00   627.21      .00   627.28     6.02    2.16  1171.47   663.66
0.000   100.00      .00      .00    612.00  1871.00   628.06      .00   628.13     5.36    2.16  1508.16   808.33
0.000   100.00      .00      .00    612.00  2242.00   629.12      .00   629.19     4.91    2.22  1923.20  1011.98
```

```
    SECNO      XLCH     ELTRD      ELLC      ELMIN        Q      CWSEL     CRIWS       EG     10K*S      VCH      AREA    .

  9415.000   215.00       .00       .00    612.20    776.00    623.82       .00    623.87     6.19     1.76    442.09   31
  9415.000   215.00       .00       .00    612.20   1088.00    625.74       .00    625.80     5.77     1.86    625.93   45
  9415.000   215.00       .00       .00    612.20   1198.00    626.37       .00    626.43     5.26     1.86    782.25   52
  9415.000   215.00       .00       .00    612.20   1385.00    627.35       .00    627.39     4.15     1.78   1148.57   68
  9415.000   215.00       .00       .00    612.20   1600.00    628.18       .00    628.23     3.57     1.76   1476.84   84
  9415.000   215.00       .00       .00    612.20   1881.00    629.23       .00    629.27     2.97     1.71   1888.38  109

  9930.000   515.00       .00       .00    612.80    776.00    624.12       .00    624.16     5.47     1.69    458.97   33
  9930.000   515.00       .00       .00    612.80   1088.00    626.03       .00    626.08     5.28     1.82    597.64   47
  9930.000   515.00       .00       .00    612.80   1198.00    626.64       .00    626.70     5.20     1.86    647.78   52
  9930.000   515.00       .00       .00    612.80   1385.00    627.58       .00    627.63     5.13     1.92    784.65   61
  9930.000   515.00       .00       .00    612.80   1600.00    628.39       .00    628.45     5.12     2.01    980.29   70
  9930.000   515.00       .00       .00    612.80   1881.00    629.40       .00    629.47     4.81     2.09   1293.24   85

 10220.000   290.00       .00       .00    612.90    776.00    624.28       .00    624.32     5.28     1.69    460.00   33
 10220.000   290.00       .00       .00    612.90   1088.00    626.18       .00    626.24     5.22     1.83    595.09   47
 10220.000   290.00       .00       .00    612.90   1198.00    626.79       .00    626.84     4.95     1.85    665.58   53
 10220.000   290.00       .00       .00    612.90   1385.00    627.72       .00    627.77     4.38     1.83    791.54   66
 10220.000   290.00       .00       .00    612.90   1600.00    628.53       .00    628.58     3.97     1.85    975.36   80
 10220.000   290.00       .00       .00    612.90   1881.00    629.54       .00    629.59     3.47     1.84   1287.52  100

 10300.000    80.00       .00       .00    613.10    776.00    624.32       .00    624.37     5.63     1.73    449.31   32
 10300.000    80.00       .00       .00    613.10   1088.00    626.23       .00    626.28     5.54     1.87    582.22   46
 10300.000    80.00       .00       .00    613.10   1198.00    626.83       .00    626.89     5.31     1.90    644.94   52
 10300.000    80.00       .00       .00    613.10   1385.00    627.76       .00    627.81     4.72     1.88    764.15   63
 10300.000    80.00       .00       .00    613.10   1600.00    628.56       .00    628.62     4.28     1.90    877.25   77
 10300.000    80.00       .00       .00    613.10   1881.00    629.57       .00    629.62     3.75     1.90   1019.59   97

 10400.000   100.00       .00       .00    614.40    776.00    624.37       .00    624.45     8.27     2.13    363.53   26
 10400.000   100.00       .00       .00    614.40   1088.00    626.28       .00    626.34     6.49     2.10    559.65   42
 10400.000   100.00       .00       .00    614.40   1198.00    626.88       .00    626.94     5.54     2.01    632.09   50
 10400.000   100.00       .00       .00    614.40   1385.00    627.80       .00    627.86     4.48     1.90    742.45   65
 10400.000   100.00       .00       .00    614.40   1600.00    628.60       .00    628.66     4.02     1.87    838.70   79
 10400.000   100.00       .00       .00    614.40   1881.00    629.60       .00    629.66     3.55     1.85    958.49   99

 10440.000    40.00    624.70    623.80    614.40    776.00    624.44       .00    624.51     8.13     2.12    365.93   27
 10440.000    40.00    624.50    623.80    614.40   1088.00    626.34       .00    626.40     6.26     2.07    567.14   43
 10440.000    40.00    624.50    623.80    614.40   1198.00    626.95       .00    627.01     5.32     1.98    640.67   51
 10440.000    40.00    624.50    623.80    614.40   1385.00    627.89       .00    627.94     4.29     1.87    752.51   66
 10440.000    40.00    624.50    623.80    614.40   1600.00    628.70       .00    628.76     3.83     1.84    850.76   81
 10440.000    40.00    624.50    623.80    614.40   1881.00    629.72       .00    629.78     3.38     1.81    972.73  102

 10480.000    40.00       .00       .00    613.20    776.00    624.51       .00    624.54     2.75     1.29    664.23   46
 10480.000    40.00       .00       .00    613.20   1088.00    626.40       .00    626.43     2.05     1.29   1540.37   75
 10480.000    40.00       .00       .00    613.20   1198.00    627.01       .00    627.03     1.85     1.28   1867.04   88
 10480.000    40.00       .00       .00    613.20   1385.00    627.94       .00    627.96     1.61     1.27   2367.08  1091
 10480.000    40.00       .00       .00    613.20   1600.00    628.76       .00    628.78     1.52     1.29   2809.39  1297
 10480.000    40.00       .00       .00    613.20   1881.00    629.78       .00    629.80     1.42     1.32   3359.20  1578
```

```
SECNO     XLCH     ELTRD     ELLC     ELMIN       Q       CWSEL     CRIWS      EG     10K*S     VCH     AREA     .01K

50.000   270.00      .00      .00    614.10    776.00    624.59      .00    624.63     3.85    1.45    536.22   395.64
50.000   270.00      .00      .00    614.10   1088.00    626.46      .00    626.50     3.18    1.51   1118.23   610.56
50.000   270.00      .00      .00    614.10   1198.00    627.06      .00    627.09     2.81    1.48   1432.18   714.25
50.000   270.00      .00      .00    614.10   1385.00    627.98      .00    628.01     2.38    1.46   1928.27   897.70
50.000   270.00      .00      .00    614.10   1600.00    628.80      .00    628.83     2.18    1.47   2368.87  1082.83
50.000   270.00      .00      .00    614.10   1881.00    629.82      .00    629.85     1.97    1.48   2916.94  1339.90

60.000   310.00      .00      .00    614.80    776.00    624.72      .00    624.76     4.87    1.56    496.60   351.54
60.000   310.00      .00      .00    614.80   1088.00    626.57      .00    626.61     4.39    1.65    997.58   519.04
60.000   310.00      .00      .00    614.80   1198.00    627.16      .00    627.20     3.84    1.62   1332.19   611.36
60.000   310.00      .00      .00    614.80   1385.00    628.06      .00    628.10     3.13    1.57   1921.98   782.36
60.000   310.00      .00      .00    614.80   1600.00    628.88      .00    628.91     2.75    1.56   2673.09   964.57
60.000   310.00      .00      .00    614.80   1881.00    629.89      .00    629.91     2.36    1.54   3659.06  1224.00

50.000   290.00      .00      .00    613.50    776.00    624.86      .00    624.90     4.61    1.59    487.99   361.36
50.000   290.00      .00      .00    613.50   1088.00    626.70      .00    626.75     4.54    1.74    687.77   510.49
50.000   290.00      .00      .00    613.50   1198.00    627.27      .00    627.32     4.27    1.76    868.89   579.88
50.000   290.00      .00      .00    613.50   1385.00    628.16      .00    628.20     3.78    1.77   1217.97   712.43
50.000   290.00      .00      .00    613.50   1600.00    628.96      .00    629.00     3.54    1.80   1533.61   850.69
50.000   290.00      .00      .00    613.50   1881.00    629.95      .00    630.00     3.23    1.83   1930.20  1047.07

00.000   150.00      .00      .00    613.90    776.00    624.93      .00    624.98     5.22    1.67    465.84   339.51
00.000   150.00      .00      .00    613.90   1088.00    626.77      .00    626.82     5.16    1.81    600.72   479.17
00.000   150.00      .00      .00    613.90   1198.00    627.34      .00    627.39     4.98    1.85    657.27   537.01
00.000   150.00      .00      .00    613.90   1385.00    628.21      .00    628.27     4.44    1.87    766.80   657.09
00.000   150.00      .00      .00    613.90   1600.00    629.01      .00    629.06     4.16    1.91    866.16   784.77
00.000   150.00      .00      .00    613.90   1881.00    630.00      .00    630.06     3.80    1.95    990.25   964.73

00.000   100.00      .00      .00    614.20    776.00    624.96      .00    624.99      .22    1.33    583.47  1646.08
00.000   100.00      .00      .00    614.20   1088.00    626.80      .00    626.83      .20    1.45    834.24  2438.16
00.000   100.00      .00      .00    614.20   1198.00    627.37      .00    627.40      .20    1.49    902.26  2708.34
00.000   100.00      .00      .00    614.20   1385.00    628.24      .00    628.28      .19    1.56   1006.94  3149.69
00.000   100.00      .00      .00    614.20   1600.00    629.03      .00    629.07      .20    1.67   1101.95  3575.79
00.000   100.00      .00      .00    614.20   1881.00    630.02      .00    630.07      .21    1.78   1220.48  4139.81

650.000   50.00   626.60   625.50    614.20    776.00    624.96      .00    624.99      .22    1.33    583.59  1646.65
650.000   50.00   626.60   625.50    614.20   1088.00    626.85      .00    626.89      .20    1.47    785.13  2410.37
650.000   50.00   626.60   625.50    614.20   1198.00    627.43      .00    627.46      .19    1.48    908.91  2735.48
650.000   50.00   626.60   625.50    614.20   1385.00    628.30      .00    628.34      .19    1.56   1013.30  3177.49
650.000   50.00   626.60   625.50    614.20   1600.00    629.10      .00    629.14      .20    1.66   1109.45  3610.42
650.000   50.00   626.60   625.50    614.20   1881.00    630.10      .00    630.15      .20    1.77   1229.47  4183.99

680.000   30.00      .00      .00    614.20    776.00    624.96      .00    624.99      .22    1.32    600.63  1653.71
680.000   30.00      .00      .00    614.20   1088.00    626.85      .00    626.89      .20    1.47    789.86  2413.01
680.000   30.00      .00      .00    614.20   1198.00    627.43      .00    627.47      .20    1.52    847.77  2671.92
680.000   30.00      .00      .00    614.20   1385.00    628.30      .00    628.34      .20    1.60    934.76  3082.30
680.000   30.00      .00      .00    614.20   1600.00    629.10      .00    629.15      .21    1.72   1014.88  3482.21
680.000   30.00      .00      .00    614.20   1881.00    630.10      .00    630.15      .22    1.85   1114.90  4009.67
```

```
   SECNO      XLCH      ELTRD     ELLC      ELMIN      Q        CWSEL     CRIWS      EG       10K*S      VCH      AREA

 11700.000   20.00      .00       .00     614.20    776.00    624.96      .00    624.99      .22      1.33    583.71  164
 11700.000   20.00      .00       .00     614.20   1088.00    626.85      .00    626.89      .20      1.47    789.91  241
 11700.000   20.00      .00       .00     614.20   1198.00    627.43      .00    627.47      .20      1.52    847.69  267
 11700.000   20.00      .00       .00     614.20   1385.00    628.30      .00    628.34      .20      1.60    934.63  308
 11700.000   20.00      .00       .00     614.20   1600.00    629.10      .00    629.15      .21      1.72   1014.71  348
 11700.000   20.00      .00       .00     614.20   1881.00    630.10      .00    630.15      .22      1.85   1114.66  400

 11820.000  120.00    631.90    626.50    614.20    776.00    624.96      .00    624.99      .22      1.33    583.85  164
 11820.000  120.00    631.90    626.50    614.20   1088.00    626.90      .00    626.93      .21      1.50    726.61  237
 11820.000  120.00    631.90    626.50    614.20   1198.00    627.49      .00    627.52      .21      1.56    770.31  261
 11820.000  120.00    631.90    626.50    614.20   1385.00    628.38      .00    628.42      .21      1.66    836.49  300
 11820.000  120.00    631.90    626.50    614.20   1600.00    629.22      .00    629.27      .22      1.78    898.24  337
 11820.000  120.00    631.90    626.50    614.20   1881.00    630.27      .00    630.33      .23      1.93    976.14  388

 11850.000   30.00      .00       .00     614.20    776.00    624.96      .00    624.99      .22      1.32    614.49  165
 11850.000   30.00      .00       .00     614.20   1088.00    626.90      .00    626.93      .19      1.43   1063.84  248
 11850.000   30.00      .00       .00     614.20   1198.00    627.50      .00    627.53      .19      1.47   1411.91  277
 11850.000   30.00      .00       .00     614.20   1385.00    628.39      .00    628.43      .18      1.53   2153.11  324
 11850.000   30.00      .00       .00     614.20   1600.00    629.23      .00    629.27      .19      1.62   2867.05  370
 11850.000   30.00      .00       .00     614.20   1881.00    630.29      .00    630.34      .19      1.72   3777.04  434

 11875.000   25.00      .00       .00     612.00    776.00    624.97      .00    624.99      .22      1.31    590.68  166
 11875.000   25.00      .00       .00     612.00   1088.00    626.90      .00    626.93      .19      1.41    877.99  251
 11875.000   25.00      .00       .00     612.00   1198.00    627.50      .00    627.53      .18      1.44    961.05  281
 11875.000   25.00      .00       .00     612.00   1385.00    628.40      .00    628.43      .18      1.50   1086.94  330
 11875.000   25.00      .00       .00     612.00   1600.00    629.24      .00    629.27      .18      1.58   1204.51  378
 11875.000   25.00      .00       .00     612.00   1881.00    630.30      .00    630.34      .18      1.68   1352.92  444

 11925.000   50.00    626.60    625.50    612.00    776.00    624.97      .00    624.99      .22      1.31    590.73  166
 11925.000   50.00    627.12    625.50    612.00   1088.00    626.96      .00    626.99      .18      1.40    885.76  254
 11925.000   50.00    626.60    625.50    612.00   1198.00    627.56      .00    627.59      .18      1.43    970.21  284
 11925.000   50.00    626.60    625.50    612.00   1385.00    628.45      .00    628.49      .17      1.49   1095.35  333
 11925.000   50.00    626.60    625.50    612.00   1600.00    629.30      .00    629.34      .17      1.57   1214.13  383
 11925.000   50.00    626.60    625.50    612.00   1881.00    630.38      .00    630.42      .17      1.66   1364.47  449

 11975.000   50.00      .00       .00     612.00    776.00    624.97      .00    624.99      .21      1.30    623.03  168
 11975.000   50.00      .00       .00     612.00   1088.00    626.96      .00    626.99      .18      1.40    938.65  254
 11975.000   50.00      .00       .00     612.00   1198.00    627.56      .00    627.59      .18      1.43   1151.91  285
 11975.000   50.00      .00       .00     612.00   1385.00    628.46      .00    628.49      .17      1.48   1502.90  334
 11975.000   50.00      .00       .00     612.00   1600.00    629.31      .00    629.34      .17      1.56   1836.18  385
 11975.000   50.00      .00       .00     612.00   1881.00    630.38      .00    630.42      .17      1.65   2257.99  453

 12002.000   27.00      .00       .00     612.00    776.00    624.97      .00    624.99      .21      1.30    623.20  168
 12002.000   27.00      .00       .00     612.00   1088.00    626.96      .00    626.99      .18      1.40    886.86  254
 12002.000   27.00      .00       .00     612.00   1198.00    627.56      .00    627.59      .18      1.43    971.33  285
 12002.000   27.00      .00       .00     612.00   1385.00    628.46      .00    628.49      .17      1.49   1096.51  333
 12002.000   27.00      .00       .00     612.00   1600.00    629.31      .00    629.34      .17      1.57   1215.37  383
 12002.000   27.00      .00       .00     612.00   1881.00    630.38      .00    630.42      .17      1.66   1365.82  450
```

```
SECNO      XLCH      ELTRD      ELLC      ELMIN       Q       CWSEL      CRIWS       EG       10K*S      VCH      AREA      .01K

30.000     78.00       .00       .00     614.10    776.00    624.94       .00     625.03        .56      2.51    309.45   1038.76
30.000     78.00       .00       .00     614.10   1088.00    626.91       .00     627.04        .59      2.89    453.85   1415.25
30.000     78.00       .00       .00     614.10   1198.00    627.51       .00     627.65        .60      3.01    507.37   1545.29
30.000     78.00       .00       .00     614.10   1385.00    628.40       .00     628.55        .62      3.20    587.22   1753.15
30.000     78.00       .00       .00     614.10   1600.00    629.24       .00     629.41        .66      3.43    662.88   1964.85
30.000     78.00       .00       .00     614.10   1881.00    630.30       .00     630.50        .70      3.69    758.73   2251.95

30.000     50.00    626.60    623.90     614.10    776.00    625.07       .00     625.17        .53      2.48    313.47   1061.32
30.000     50.00    626.60    623.90     614.10   1088.00    627.20       .00     627.32        .54      2.82    478.95   1475.57
30.000     50.00    626.60    623.90     614.10   1198.00  . 627.75       .00     627.87        .56      2.94    528.38   1598.34
30.000     50.00    626.60    623.90     614.10   1385.00    628.58       .00     628.73        .59      3.15    603.61   1797.83
30.000     50.00    626.60    623.90     614.10   1600.00    629.40       .00     629.56        .64      3.39    676.96   2005.74
30.000     50.00    626.60    623.90     614.10   1881.00    630.43       .00     630.62        .68      3.65    769.87   2286.63

80.000     50.00       .00       .00     614.10    776.00    625.08       .00     625.17        .53      2.46    341.38   1067.52
80.000     50.00       .00       .00     614.10   1088.00    627.20       .00     627.32        .54      2.82    647.46   1476.47
80.000     50.00       .00       .00     614.10   1198.00    627.75       .00     627.88        .56      2.94    947.83   1600.09
80.000     50.00       .00       .00     614.10   1385.00    628.59       .00     628.73        .59      3.14   1408.10   1801.88
80.000     50.00       .00       .00     614.10   1600.00    629.40       .00     629.57        .63      3.37   1857.01   2013.31
80.000     50.00       .00       .00     614.10   1881.00    630.44       .00     630.62        .67      3.63   2425.45   2300.37

20.000    140.00       .00       .00     614.10    776.00    625.10       .00     625.19       3.14      2.40    342.29    437.59
20.000    140.00       .00       .00     614.10   1088.00    627.25       .00     627.34       2.70      2.52    484.67    662.74
20.000    140.00       .00       .00     614.10   1198.00    627.82       .00     627.90       2.58      2.53    535.39    745.88
20.000    140.00       .00       .00     614.10   1385.00    628.67       .00     628.76       2.42      2.56    612.60    890.18
20.000    140.00       .00       .00     614.10   1600.00    629.51       .00     629.60       2.33      2.60    688.03   1049.18
20.000    140.00       .00       .00     614.10   1881.00    630.57       .00     630.67       2.18      2.64    783.25   1272.64

20.000    100.00       .00       .00     614.20    776.00    625.14       .00     625.23       5.21      2.36    341.06    339.94
20.000    100.00       .00       .00     614.20   1088.00    627.30       .00     627.38       4.00      2.33    486.53    544.32
20.000    100.00       .00       .00     614.20   1198.00    627.86       .00     627.94       3.80      2.34    527.87    614.58
20.000    100.00       .00       .00     614.20   1385.00    628.70       .00     628.79       3.58      2.37    591.69    731.98
20.000    100.00       .00       .00     614.20   1600.00    629.54       .00     629.63       3.41      2.40    661.65    965.90
20.000    100.00       .00       .00     614.20   1881.00    630.59       .00     630.70       3.17      2.42    751.05   1056.35

470.000    50.00    626.10    623.50     614.20    776.00    625.28       .00     625.37       5.26      2.39    324.86    338.45
470.000    50.00    626.10    623.50     614.20   1088.00    627.58       .00     627.65       3.53      2.23    507.35    579.10
470.000    50.00    626.10    623.50     614.20   1198.00    628.15       .00     628.22       3.36      2.23    549.87    653.90
470.000    50.00    626.10    623.50     614.20   1385.00    628.99       .00     629.07       3.18      2.26    615.30    776.18
470.000    50.00    626.10    623.50     614.20   1600.00    629.81       .00     629.90       3.06      2.30    685.25    914.06
470.000    50.00    626.10    623.50     614.20   1881.00    630.85       .00     630.94       2.89      2.34    773.26   1106.92

520.000    50.00       .00       .00     614.20    776.00    625.31       .00     625.39       4.88      2.31    350.32    351.19
520.000    50.00       .00       .00     614.20   1088.00    627.61       .00     627.67       3.48      2.21    914.60    583.55
520.000    50.00       .00       .00     614.20   1198.00    628.18       .00     628.24       3.29      2.21   1191.21    660.53
520.000    50.00       .00       .00     614.20   1385.00    629.03       .00     629.09       3.07      2.23   1643.90    789.84
520.000    50.00       .00       .00     614.20   1600.00    629.87       .00     629.92       2.92      2.26   2101.21    935.60
520.000    50.00       .00       .00     614.20   1881.00    630.91       .00     630.97       2.71      2.27   2676.84   1141.68
```

```
   SECNO      XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL    CRIWS      EG     10K*S      VCH      AREA     .

 12600.000    80.00     .00       .00    614.40    776.00   625.35     .00    625.44     5.19     2.36    341.59   34
 12600.000    80.00     .00       .00    614.40   1088.00   627.63     .00    627.71     3.76     2.28    496.83   56
 12600.000    80.00     .00       .00    614.40   1198.00   628.20     .00    628.28     3.56     2.28    539.38   63
 12600.000    80.00     .00       .00    614.40   1385.00   629.05     .00    629.13     3.37     2.31    603.63   75
 12600.000    80.00     .00       .00    614.40   1600.00   629.87     .00    629.96     3.22     2.35    674.11   89
 12600.000    80.00     .00       .00    614.40   1881.00   630.91     .00    631.02     3.03     2.38    761.98  108

 12700.000   100.00     .00       .00    613.60    776.00   625.41     .00    625.47     2.04     2.08    387.85   54
 12700.000   100.00     .00       .00    613.60   1088.00   627.66     .00    627.73     1.82     2.22    536.15   80
 12700.000   100.00     .00       .00    613.60   1198.00   628.23     .00    628.31     1.78     2.26    587.31   89
 12700.000   100.00     .00       .00    613.60   1385.00   629.08     .00    629.15     1.74     2.32    663.47  105
 12700.000   100.00     .00       .00    613.60   1600.00   629.91     .00    629.99     1.73     2.40    738.00  121
 12700.000   100.00     .00       .00    613.60   1881.00   630.95     .00    631.04     1.69     2.48    831.82  144

 12750.000    50.00   626.40    623.40   613.60    776.00   625.55     .00    625.65     2.90     2.50    310.92   45
 12750.000    50.00   626.40    623.40   613.60   1088.00   627.86     .00    627.93     1.69     2.16    554.61   83
 12750.000    50.00   626.40    623.40   613.60   1198.00   628.42     .00    628.49     1.66     2.20    604.71   93
 12750.000    50.00   626.40    623.40   613.60   1385.00   629.25     .00    629.32     1.63     2.27    679.18  108
 12750.000    50.00   626.40    623.40   613.60   1600.00   630.09     .00    630.16     1.62     2.35    754.85  125
 12750.000    50.00   626.40    623.40   613.60   1881.00   631.15     .00    631.23     1.59     2.42    850.60  149

 12800.000    50.00     .00       .00    613.50    776.00   625.61     .00    625.67     1.84     2.01    401.79   57
 12800.000    50.00     .00       .00    613.50   1088.00   627.88     .00    627.94     1.61     2.12    819.45   85
 12800.000    50.00     .00       .00    613.50   1198.00   628.44     .00    628.50     1.58     2.16    977.55   95
 12800.000    50.00     .00       .00    613.50   1385.00   629.27     .00    629.33     1.55     2.22   1212.62  111
 12800.000    50.00     .00       .00    613.50   1600.00   630.12     .00    630.18     1.53     2.29   1455.11  129
 12800.000    50.00     .00       .00    613.50   1881.00   631.19     .00    631.25     1.48     2.35   1758.68  154

 12845.000    45.00     .00       .00    614.10    776.00   625.62     .00    625.68     4.16     2.01    386.73   38
 12845.000    45.00     .00       .00    614.10   1088.00   627.89     .00    627.95     3.20     2.01    648.83   60
 12845.000    45.00     .00       .00    614.10   1198.00   628.45     .00    628.51     2.94     2.02    769.50   69
 12845.000    45.00     .00       .00    614.10   1385.00   629.28     .00    629.34     2.62     2.02    948.96   85
 12845.000    45.00     .00       .00    614.10   1600.00   630.13     .00    630.19     2.38     2.04   1131.62  103
 12845.000    45.00     .00       .00    614.10   1881.00   631.20     .00    631.26     2.11     2.05   1362.76  129

 13120.000   275.00     .00       .00    614.40    776.00   625.73     .00    625.77     2.45     1.61    481.97   49
 13120.000   275.00     .00       .00    614.40   1088.00   627.98     .00    628.02     2.01     1.67    778.61   76
 13120.000   275.00     .00       .00    614.40   1198.00   628.53     .00    628.58     1.97     1.71    930.79   85
 13120.000   275.00     .00       .00    614.40   1385.00   629.35     .00    629.40     1.91     1.79   1230.71  100
 13120.000   275.00     .00       .00    614.40   1600.00   630.19     .00    630.24     1.86     1.86   1584.29  117
 13120.000   275.00     .00       .00    614.40   1881.00   631.26     .00    631.31     1.78     1.94   2092.60  140

 13215.000    95.00     .00       .00    614.80    776.00   625.75     .00    625.80     2.83     1.70    456.59   46
 13215.000    95.00     .00       .00    614.80   1088.00   628.00     .00    628.04     2.33     1.75    626.59   71
 13215.000    95.00     .00       .00    614.80   1198.00   628.55     .00    628.60     2.29     1.80    673.60   79
 13215.000    95.00     .00       .00    614.80   1385.00   629.37     .00    629.42     2.22     1.88    753.66   92
 13215.000    95.00     .00       .00    614.80   1600.00   630.21     .00    630.27     2.16     1.96    837.44  108
 13215.000    95.00     .00       .00    614.80   1881.00   631.27     .00    631.33     2.07     2.05    943.58  130
```

```
ECNO     XLCH      ELTRD     ELLC      ELMIN     Q         CWSEL     CRIWS     EG        10K*S     VCH       AREA      .01K

5.000    100.00       .00       .00    614.40    776.00    625.78       .00    625.87      9.96      2.47    320.11    245.94
5.000    100.00       .00       .00    614.40   1088.00    628.02       .00    628.10      7.21      2.39    463.16    405.20
5.000    100.00       .00       .00    614.40   1198.00    628.57       .00    628.65      6.79      2.39    504.49    459.82
5.000    100.00       .00       .00    614.40   1385.00    629.39       .00    629.48      6.34      2.40    566.07    549.87
5.000    100.00       .00       .00    614.40   1600.00    630.22       .00    630.32      6.04      2.43    628.89    651.26
5.000    100.00       .00       .00    614.40   1881.00    631.28       .00    631.39      5.65      2.46    707.97    791.15

5.000     50.00    626.60    623.90    614.40    776.00    625.98       .00    626.08     10.33      2.55    308.18    241.49
5.000     50.00    625.90    623.90    614.40   1088.00    628.25       .00    628.33      6.48      2.30    480.35    427.31
5.000     50.00    625.90    623.90    614.40   1198.00    628.79       .00    628.87      6.16      2.30    520.87    482.79
5.000     50.00    625.90    623.90    614.40   1385.00    629.60       .00    629.69      5.81      2.32    582.06    574.81
5.000     50.00    625.90    623.90    614.40   1600.00    630.43       .00    630.53      5.58      2.36    644.34    677.55
5.000     50.00    625.90    623.90    614.40   1881.00    631.51       .00    631.62      5.22      2.39    725.16    823.28

15.000    50.00       .00       .00    614.30    776.00    626.05       .00    626.13      8.55      2.34    343.34    265.36
15.000    50.00       .00       .00    614.30   1088.00    628.31       .00    628.37      5.96      2.22   1402.96    445.80
15.000    50.00       .00       .00    614.30   1198.00    628.86       .00    628.91      5.60      2.21   1858.43    506.16
15.000    50.00       .00       .00    614.30   1385.00    629.68       .00    629.73      5.19      2.21   2572.65    608.08
15.000    50.00       .00       .00    614.30   1600.00    630.53       .00    630.57      4.88      2.23   3301.61    724.15
15.000    50.00       .00       .00    614.30   1881.00    631.62       .00    631.66      4.45      2.23   4246.68    891.47

25.000   310.00       .00       .00    615.00    776.00    626.30       .00    626.34      5.11      1.77    439.95    343.40
25.000   310.00       .00       .00    615.00   1088.00    628.47       .00    628.52      4.19      1.86    772.68    531.64
25.000   310.00       .00       .00    615.00   1198.00    629.00       .00    629.06      4.13      1.91    927.26    589.59
25.000   310.00       .00       .00    615.00   1385.00    629.82       .00    629.88      4.08      2.00   1165.42    685.26
25.000   310.00       .00       .00    615.00   1600.00    630.66       .00    630.72      4.09      2.10   1409.19    791.30
25.000   310.00       .00       .00    615.00   1881.00    631.74       .00    631.81      4.00      2.20   1724.76    940.08

75.000   150.00       .00       .00    615.30    776.00    626.37       .00    626.43      5.57      1.82    427.11    328.89
75.000   150.00       .00       .00    615.30   1088.00    628.53       .00    628.59      4.62      1.92    577.17    506.32
75.000   150.00       .00       .00    615.30   1198.00    629.07       .00    629.13      4.57      1.98    617.04    560.64
75.000   150.00       .00       .00    615.30   1385.00    629.88       .00    629.95      4.54      2.08    678.50    649.71
75.000   150.00       .00       .00    615.30   1600.00    630.72       .00    630.79      4.60      2.20    741.10    746.33
75.000   150.00       .00       .00    615.30   1881.00    631.80       .00    631.88      4.58      2.32    822.05    879.23

75.000   100.00       .00       .00    615.30    776.00    626.43       .00    626.52     10.61      2.50    315.02    238.19
75.000   100.00       .00       .00    615.30   1088.00    628.57       .00    628.67      9.11      2.61    438.26    360.52
75.000   100.00       .00       .00    615.30   1198.00    629.11       .00    629.21      8.63      2.62    480.82    407.73
75.000   100.00       .00       .00    615.30   1385.00    629.92       .00    630.02      7.97      2.62    546.06    490.51
75.000   100.00       .00       .00    615.30   1600.00    630.76       .00    630.86      7.44      2.63    612.93    586.42
75.000   100.00       .00       .00    615.30   1881.00    631.84       .00    631.95      6.74      2.62    699.30    724.43

025.000   50.00    627.10    625.00    615.30    776.00    626.61       .00    626.70     10.49      2.51    309.16    239.55
025.000   50.00    627.10    625.00    615.30   1088.00    628.77       .00    628.86      8.34      2.53    453.53    376.78
025.000   50.00    627.10    625.00    615.30   1198.00    629.30       .00    629.39      7.91      2.53    496.05    426.00
025.000   50.00    627.10    625.00    615.30   1385.00    630.11       .00    630.20      7.36      2.53    560.73    510.65
025.000   50.00    627.10    625.00    615.30   1600.00    630.95       .00    631.05      6.89      2.55    628.06    609.50
025.000   50.00    627.10    625.00    615.30   1881.00    632.05       .00    632.16      6.24      2.54    716.01    752.78
```

```
    SECNO       XLCH      ELTRD      ELLC      ELMIN        Q       CWSEL     CRIWS       EG      10K*S      VCH       AREA      .

  14075.000    50.00       .00        .00     615.30    776.00    626.67       .00    626.76     9.78      2.43    323.89    24
  14075.000    50.00       .00        .00     615.30   1088.00    628.82       .00    628.90     8.02      2.48    678.83    38
  14075.000    50.00       .00        .00     615.30   1198.00    629.36       .00    629.44     7.54      2.47    908.20    43
  14075.000    50.00       .00        .00     615.30   1385.00    630.18       .00    630.25     6.84      2.45   1422.60    52
  14075.000    50.00       .00        .00     615.30   1600.00    631.03       .00    631.09     6.26      2.44   1966.94    63
  14075.000    50.00       .00        .00     615.30   1881.00    632.15       .00    632.20     5.48      2.39   2677.35    80

  14205.000   130.00       .00        .00     615.30    776.00    626.80       .00    626.88     9.31      2.39    329.31    25
  14205.000   130.00       .00        .00     615.30   1088.00    628.92       .00    629.01     7.67      2.44    468.98    39
  14205.000   130.00       .00        .00     615.30   1198.00    629.45       .00    629.54     7.28      2.44    511.42    44
  14205.000   130.00       .00        .00     615.30   1385.00    630.26       .00    630.35     6.81      2.45    575.75    53
  14205.000   130.00       .00        .00     615.30   1600.00    631.10       .00    631.19     6.43      2.48    642.55    63
  14205.000   130.00       .00        .00     615.30   1881.00    632.20       .00    632.30     5.86      2.48    730.47    77

  14305.000   100.00       .00        .00     615.10    776.00    626.90       .00    626.97     7.04      2.16    374.65    29
  14305.000   100.00       .00        .00     615.10   1088.00    629.02       .00    629.08     4.98      2.04    561.92    48
  14305.000   100.00       .00        .00     615.10   1198.00    629.54       .00    629.60     4.68      2.03    611.67    55
  14305.000   100.00       .00        .00     615.10   1385.00    630.35       .00    630.41     4.30      2.02    688.80    66
  14305.000   100.00       .00        .00     615.10   1600.00    631.19       .00    631.25     4.02      2.02    768.67    79
  14305.000   100.00       .00        .00     615.10   1881.00    632.28       .00    632.36     3.65      2.02    872.85    98

  14355.000    50.00    627.50     623.80     615.10    776.00    627.13       .00    627.20     7.12      2.21    351.54    29
  14355.000    50.00    627.50     623.80     615.10   1088.00    629.21       .00    629.26     4.52      1.96    580.73    51
  14355.000    50.00    627.50     623.80     615.10   1198.00    629.72       .00    629.78     4.28      1.96    629.32    57
  14355.000    50.00    627.50     623.80     615.10   1385.00    630.52       .00    630.58     3.99      1.96    705.32    69
  14355.000    50.00    627.50     623.80     615.10   1600.00    631.37       .00    631.44     3.73      1.96    786.50    82
  14355.000    50.00    627.50     623.80     615.10   1881.00    632.49       .00    632.56     3.39      1.96    892.17   10

  14405.000    50.00       .00        .00     615.10    776.00    627.17       .00    627.24     6.30      2.08    394.15    30
  14405.000    50.00       .00        .00     615.10   1088.00    629.24       .00    629.29     4.45      1.95   1078.64    51
  14405.000    50.00       .00        .00     615.10   1198.00    629.76       .00    629.80     4.18      1.94   1322.14    58
  14405.000    50.00       .00        .00     615.10   1385.00    630.57       .00    630.60     3.80      1.92   1710.04    71
  14405.000    50.00       .00        .00     615.10   1600.00    631.43       .00    631.47     3.48      1.90   2120.04    85
  14405.000    50.00       .00        .00     615.10   1881.00    632.55       .00    632.58     3.07      1.87   2653.07   107

  14535.000   130.00       .00        .00     615.10    776.00    627.26       .00    627.32     6.05      2.05    401.90    31
  14535.000   130.00       .00        .00     615.10   1088.00    629.30       .00    629.35     4.37      1.94    586.66    52
  14535.000   130.00       .00        .00     615.10   1198.00    629.81       .00    629.86     4.15      1.94    635.36    58
  14535.000   130.00       .00        .00     615.10   1385.00    630.61       .00    630.67     3.88      1.94    711.16    70
  14535.000   130.00       .00        .00     615.10   1600.00    631.46       .00    631.53     3.63      1.95    792.67    84
  14535.000   130.00       .00        .00     615.10   1881.00    632.58       .00    632.65     3.32      1.95    897.72   103

  14635.000   100.00       .00        .00     615.20    776.00    627.32       .00    627.38     6.56      2.10    383.09    30
  14635.000   100.00       .00        .00     615.20   1088.00    629.34       .00    629.41     5.46      2.15    526.88    46
  14635.000   100.00       .00        .00     615.20   1198.00    629.85       .00    629.91     5.18      2.15    575.13    52
  14635.000   100.00       .00        .00     615.20   1385.00    630.64       .00    630.71     4.77      2.14    650.82    63
  14635.000   100.00       .00        .00     615.20   1600.00    631.50       .00    631.57     4.38      2.13    731.87    76
  14635.000   100.00       .00        .00     615.20   1881.00    632.61       .00    632.69     3.89      2.11    837.31    95
```

```
SECNO      XLCH     ELTRD    ELLC     ELMIN     Q        CWSEL    CRIWS    EG       10K*S    VCH     AREA     .01K

85.000     50.00    628.40   624.20   615.20    776.00   627.51     .00    627.59    7.21    2.23    347.88   289.00
85.000     50.00    628.40   624.20   615.20   1088.00   629.68     .00    629.74    4.62    2.01    559.56   506.07
85.000     50.00    628.40   624.20   615.20   1198.00   630.16     .00    630.22    4.46    2.02    604.81   566.98
85.000     50.00    628.40   624.20   615.20   1385.00   630.92     .00    630.99    4.21    2.04    677.00   674.74
85.000     50.00    628.40   624.20   615.20   1600.00   631.76     .00    631.83    3.93    2.04    756.73   807.11
85.000     50.00    628.40   624.20   615.20   1881.00   632.84     .00    632.92    3.57    2.04    859.31   995.87

35.000     50.00      .00      .00    615.20    776.00   627.56     .00    627.62    5.95    2.03    397.31   318.15
35.000     50.00      .00      .00    615.20   1088.00   629.72     .00    629.77    4.54    2.00    822.25   510.73
35.000     50.00      .00      .00    615.20   1198.00   630.20     .00    630.25    4.36    2.00   1155.77   573.46
35.000     50.00      .00      .00    615.20   1385.00   630.97     .00    631.01    4.05    2.00   1715.15   687.91
35.000     50.00      .00      .00    615.20   1600.00   631.82     .00    631.86    3.72    1.99   2326.05   829.02
35.000     50.00      .00      .00    615.20   1881.00   632.91     .00    632.95    3.31    1.97   3111.51  1033.19

70.000    135.00      .00      .00    615.71    776.00   627.65     .00    627.72    7.06    2.16    372.74   292.07
70.000    135.00      .00      .00    615.71   1088.00   629.78     .00    629.85    5.63    2.17    521.15   458.64
70.000    135.00      .00      .00    615.71   1198.00   630.26     .00    630.33    5.42    2.18    566.64   514.73
70.000    135.00      .00      .00    615.71   1385.00   631.02     .00    631.09    5.06    2.19    638.81   615.71
70.000    135.00      .00      .00    615.71   1600.00   631.86     .00    631.93    4.65    2.18    718.85   742.06
70.000    135.00      .00      .00    615.71   1881.00   632.94     .00    633.02    4.16    2.16    820.79   922.10

70.000    100.00      .00      .00    615.40    776.00   627.72     .00    627.79    6.95    2.12    377.33   294.25
70.000    100.00      .00      .00    615.40   1088.00   629.84     .00    629.90    5.30    2.07    540.48   472.38
70.000    100.00      .00      .00    615.40   1198.00   630.31     .00    630.38    5.10    2.08    587.46   530.44
70.000    100.00      .00      .00    615.40   1385.00   631.07     .00    631.14    4.75    2.08    663.19   635.75
70.000    100.00      .00      .00    615.40   1600.00   631.91     .00    631.98    4.35    2.06    746.85   766.78
70.000    100.00      .00      .00    615.40   1881.00   632.98     .00    633.06    3.88    2.03    854.45   955.25

20.000     50.00    628.80   624.50   615.40    776.00   627.92     .00    628.00    7.73    2.26    342.71   279.12
20.000     50.00    628.80   624.50   615.40   1088.00   630.07     .00    630.13    4.72    1.98    563.98   500.67
20.000     50.00    628.80   624.50   615.40   1198.00   630.54     .00    630.60    4.56    1.99    610.50   561.03
20.000     50.00    628.80   624.50   615.40   1385.00   631.28     .00    631.34    4.30    2.00    684.57   667.85
20.000     50.00    628.80   624.50   615.40   1600.00   632.10     .00    632.17    3.99    1.99    767.29   800.94
20.000     50.00    628.80   624.50   615.40   1881.00   633.19     .00    633.26    3.57    1.97    876.01   995.51

070.000    50.00      .00      .00    615.87    598.00   628.01     .00    628.03    1.32    1.02    522.38   521.13
070.000    50.00      .00      .00    615.87    825.00   630.13     .00    630.15    1.20    1.08    909.22   752.14
070.000    50.00      .00      .00    615.87    929.00   630.60     .00    630.62    1.28    1.14   1120.02   822.72
070.000    50.00      .00      .00    615.87   1113.00   631.35     .00    631.37    1.39    1.24   1453.85   945.31
070.000    50.00      .00      .00    615.87   1321.00   632.18     .00    632.20    1.45    1.33   1826.30  1096.20
070.000    50.00      .00      .00    615.87   1489.00   633.27     .00    633.29    1.28    1.32   2316.68  1315.70

160.000    90.00      .00      .00    616.10    598.00   628.02     .00    628.05    1.42    1.05    508.74   501.43
160.000    90.00      .00      .00    616.10    825.00   630.14     .00    630.17    1.30    1.10    822.23   723.24
160.000    90.00      .00      .00    616.10    929.00   630.61     .00    630.63    1.38    1.17   1027.93   791.94
160.000    90.00      .00      .00    616.10   1113.00   631.36     .00    631.38    1.49    1.27   1361.95   911.73
160.000    90.00      .00      .00    616.10   1321.00   632.19     .00    632.21    1.55    1.36   1734.31  1059.60
160.000    90.00      .00      .00    616.10   1489.00   633.29     .00    633.30    1.36    1.35   2223.74  1274.91
```

```
   SECNO      XLCH     ELTRD      ELLC     ELMIN        Q      CWSEL     CRIWS       EG     10K*S      VCH      AREA     .

 15205.000    45.00      .00       .00    616.10    598.00    628.03      .00    628.05     1.42     1.05    509.11   50
 15205.000    45.00      .00       .00    616.10    825.00    630.14      .00    630.17     1.30     1.10    668.12   72
 15205.000    45.00      .00       .00    616.10    929.00    630.61      .00    630.64     1.38     1.17    715.41   79
 15205.000    45.00      .00       .00    616.10   1113.00    631.36      .00    631.39     1.50     1.27    790.16   90
 15205.000    45.00      .00       .00    616.10   1321.00    632.19      .00    632.23     1.57     1.37    872.92  105
 15205.000    45.00      .00       .00    616.10   1489.00    633.28      .00    633.32     1.39     1.36    982.15  126

 15305.000   100.00      .00       .00    615.70    598.00    628.04      .00    628.08     3.86     1.58    376.33   30
 15305.000   100.00      .00       .00    615.70    825.00    630.16      .00    630.20     3.47     1.67    483.71   44
 15305.000   100.00      .00       .00    615.70    929.00    630.62      .00    630.68     3.69     1.76    516.80   48
 15305.000   100.00      .00       .00    615.70   1113.00    631.37      .00    631.43     4.01     1.90    569.82   55
 15305.000   100.00      .00       .00    615.70   1321.00    632.20      .00    632.27     4.19     2.01    628.91   64
 15305.000   100.00      .00       .00    615.70   1489.00    633.29      .00    633.36     3.68     1.97    706.40   77

 15355.000    50.00   629.70    624.40    615.70    598.00    628.14      .00    628.19     4.77     1.76    338.85   27
 15355.000    50.00   629.70    624.40    615.70    825.00    630.34      .00    630.38     3.25     1.63    496.29   45
 15355.000    50.00   629.70    624.40    615.70    929.00    630.81      .00    630.86     3.45     1.72    529.62   50
 15355.000    50.00   629.70    624.40    615.70   1113.00    631.57      .00    631.63     3.74     1.85    583.60   57
 15355.000    50.00   629.70    624.40    615.70   1321.00    632.40      .00    632.47     3.91     1.96    642.71   66
 15355.000    50.00   629.70    624.40    615.70   1489.00    633.48      .00    633.55     3.47     1.93    719.31   79

 15390.000    35.00      .00       .00    615.70    598.00    628.16      .00    628.20     3.70     1.56    381.56   31
 15390.000    35.00      .00       .00    615.70    825.00    630.35      .00    630.40     3.23     1.63    497.12   45
 15390.000    35.00      .00       .00    615.70    929.00    630.82      .00    630.87     3.44     1.71    530.50   50
 15390.000    35.00      .00       .00    615.70   1113.00    631.58      .00    631.64     3.72     1.85    584.56   57
 15390.000    35.00      .00       .00    615.70   1321.00    632.41      .00    632.48     3.39     1.96    643.72   60
 15390.000    35.00      .00       .00    615.70   1489.00    633.49      .00    633.56     3.46     1.92    720.20   80

 15420.000    30.00      .00       .00    615.10    598.00    628.19      .00    628.21     1.24     1.23    484.73   53
 15420.000    30.00      .00       .00    615.10    825.00    630.38      .00    630.41     1.12     1.35    644.06   77
 15420.000    30.00      .00       .00    615.10    929.00    630.85      .00    630.88     1.18     1.42    705.48   85
 15420.000    30.00      .00       .00    615.10   1113.00    631.62      .00    631.65     1.24     1.52    812.06  100
 15420.000    30.00      .00       .00    615.10   1321.00    632.46      .00    632.50     1.24     1.59    930.02  118
 15420.000    30.00      .00       .00    615.10   1489.00    633.54      .00    633.58     1.04     1.53   1081.42  145

 15460.000    40.00   629.70    629.10    615.10    598.00    628.20      .00    628.23     1.23     1.23    485.76   53
 15460.000    40.00   629.70    629.10    615.10    825.00    630.43      .00    630.46     1.09     1.33    651.83   76
 15460.000    40.00   629.70    629.10    615.10    929.00    630.90      .00    630.93     1.15     1.41    712.44   86
 15460.000    40.00   629.70    629.10    615.10   1113.00    631.68      .00    631.71     1.21     1.50    820.54  101
 15460.000    40.00   629.70    629.10    615.10   1321.00    632.54      .00    632.57     1.20     1.57    940.45  120
 15460.000    40.00   629.70    629.10    615.10   1489.00    633.63      .00    633.66     1.01     1.52   1093.20  148

 15495.000    35.00      .00       .00    615.10    598.00    628.21      .00    628.23     1.23     1.23    486.00   53
 15495.000    35.00      .00       .00    615.10    825.00    630.43      .00    630.46     1.09     1.33    652.31   78
 15495.000    35.00      .00       .00    615.10    929.00    630.91      .00    630.94     1.15     1.41    712.96   86
 15495.000    35.00      .00       .00    615.10   1113.00    631.68      .00    631.72     1.20     1.50    821.13  101
 15495.000    35.00      .00       .00    615.10   1321.00    632.54      .00    632.58     1.20     1.57    941.04  120
 15495.000    35.00      .00       .00    615.10   1489.00    633.63      .00    633.66     1.01     1.52   1093.72  1482
```

```
SECNO     XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL     CRIWS      EG      10K*S      VCH     AREA      .01K

30.000    35.00      .00      .00    616.00   598.00   628.21      .00    628.24      .25      1.39    430.52   1184.55
30.000    35.00      .00      .00    616.00   825.00   630.43      .00    630.47      .25      1.53    663.93   1654.59
30.000    35.00      .00      .00    616.00   929.00   630.91      .00    630.95      .27      1.63    809.35   1795.67
30.000    35.00      .00      .00    616.00  1113.00   631.68      .00    631.73      .29      1.78   1057.71   2057.67
30.000    35.00      .00      .00    616.00  1321.00   632.53      .00    632.59      .31      1.91   1330.05   2382.76
30.000    35.00      .00      .00    616.00  1489.00   633.63      .00    633.67      .27      1.89   1678.92   2850.05

10.000    80.00   629.50   628.60    616.00   598.00   628.21      .00    628.24      .26      1.39    430.43   1184.18
10.000    80.00   629.50   628.60    616.00   825.00   630.45      .00    630.48      .25      1.53    666.31   1656.87
10.000    80.00   629.50   628.60    616.00   929.00   630.92      .00    630.96      .27      1.63    810.21   1796.51
10.000    80.00   629.50   628.60    616.00  1113.00   631.69      .00    631.74      .29      1.78   1057.97   2057.96
10.000    80.00   629.50   628.60    616.00  1321.00   632.55      .00    632.60      .31      1.91   1332.18   2385.45
10.000    80.00   629.50   628.60    616.00  1489.00   633.64      .00    633.69      .27      1.89   1683.02   2855.87

50.000    40.00      .00      .00    616.50   598.00   628.22      .00    628.24     2.71      1.25    507.77    363.36
50.000    40.00      .00      .00    616.50   825.00   630.48      .00    630.49     1.29      1.03   1172.04    726.92
50.000    40.00      .00      .00    616.50   929.00   630.95      .00    630.97     1.20      1.03   1361.38    846.97
50.000    40.00      .00      .00    616.50  1113.00   631.74      .00    631.75     1.07      1.02   1816.93   1076.63
50.000    40.00      .00      .00    616.50  1321.00   632.60      .00    632.61      .92      1.00   2374.73   1375.27
50.000    40.00      .00      .00    616.50  1489.00   633.70      .00    633.70      .66       .89   3104.17   1838.78

05.000   455.00      .00      .00    617.30   598.00   628.33      .00    628.35     2.23      1.25    524.58    400.09
05.000   455.00      .00      .00    617.30   825.00   630.54      .00    630.56     1.49      1.16    821.67    675.28
05.000   455.00      .00      .00    617.30   929.00   631.01      .00    631.03     1.49      1.20    921.40    759.81
05.000   455.00      .00      .00    617.30  1113.00   631.79      .00    631.81     1.46      1.24   1097.38    920.25
05.000   455.00      .00      .00    617.30  1321.00   632.65      .00    632.67     1.36      1.26   1299.58   1132.38
05.000   455.00      .00      .00    617.30  1489.00   633.73      .00    633.74     1.07      1.18   1556.71   1440.83

390.000  285.00      .00      .00    616.90   598.00   628.40      .00    628.42     2.49      1.23    510.41    379.25
390.000  285.00      .00      .00    616.90   825.00   630.58      .00    630.60     1.67      1.19    763.70    638.07
390.000  285.00      .00      .00    616.90   929.00   631.05      .00    631.08     1.68      1.23    854.48    715.75
390.000  285.00      .00      .00    616.90  1113.00   631.83      .00    631.85     1.66      1.29   1008.35    864.51
390.000  285.00      .00      .00    616.90  1321.00   632.69      .00    632.71     1.57      1.32   1179.03   1053.02
390.000  285.00      .00      .00    616.90  1489.00   633.76      .00    633.78     1.27      1.25   1395.49   1322.91

555.000  165.00      .00      .00    617.31   598.00   628.44      .00    628.47     2.97      1.32    478.16    346.79
555.000  165.00      .00      .00    617.31   825.00   630.61      .00    630.63     2.00      1.27    698.43    583.70
555.000  165.00      .00      .00    617.31   929.00   631.08      .00    631.11     2.03      1.32    780.92    652.41
555.000  165.00      .00      .00    617.31  1113.00   631.86      .00    631.88     1.99      1.38    933.32    789.25
555.000  165.00      .00      .00    617.31  1321.00   632.71      .00    632.74     1.87      1.40   1103.22    966.46
555.000  165.00      .00      .00    617.31  1489.00   633.78      .00    633.80     1.48      1.33   1317.79   1222.31

655.000  100.00      .00      .00    618.20   598.00   628.46      .00    628.57    16.39      2.60    230.17    147.70
655.000  100.00      .00      .00    618.20   825.00   630.62      .00    630.70    13.18      2.43    388.49    227.23
655.000  100.00      .00      .00    618.20   929.00   631.10      .00    631.16     9.74      2.13    487.77    297.73
655.000  100.00      .00      .00    618.20  1113.00   631.88      .00    631.93     5.87      1.73    650.71    459.30
655.000  100.00      .00      .00    618.20  1321.00   632.73      .00    632.77     3.68      1.43    829.62    668.72
655.000  100.00      .00      .00    618.20  1489.00   633.79      .00    633.83     2.05      1.13   1053.16   1041.11
```

```
   SECNO      XLCH     ELTRD     ELLC     ELMIN        Q      CWSEL     CRIWS      EG      10K*S      VCH      AREA

 16725.000    70.00   630.00   627.70   618.20    598.00   628.57      .00   628.67    15.96     2.57    232.45
 16725.000    70.00   630.00   627.70   618.20    825.00   630.62      .00   630.70    13.27     2.44    387.07
 16725.000    70.00   630.00   627.70   618.20    929.00   631.10      .00   631.16     9.72     2.13    488.05
 16725.000    70.00   630.00   627.70   618.20   1113.00   631.88      .00   631.93     5.86     1.73    651.29
 16725.000    70.00   630.00   627.70   618.20   1321.00   632.73      .00   632.77     3.68     1.43    829.66
 16725.000    70.00   630.00   627.70   618.20   1489.00   633.80      .00   633.83     2.04     1.13   1053.93

 16795.000    70.00      .00      .00   617.91    598.00   628.70      .00   628.73     2.90     1.40    426.50
 16795.000    70.00      .00      .00   617.91    825.00   630.73      .00   630.75     1.78     1.27   1031.70
 16795.000    70.00      .00      .00   617.91    929.00   631.18      .00   631.20     1.75     1.29   1285.20
 16795.000    70.00      .00      .00   617.91   1113.00   631.93      .00   631.96     1.67     1.32   1711.90
 16795.000    70.00      .00      .00   617.91   1321.00   632.77      .00   632.79     1.54     1.33   2185.83
 16795.000    70.00      .00      .00   617.91   1489.00   633.83      .00   633.85     1.22     1.25   2787.24

 16910.000   115.00      .00      .00   618.20    598.00   628.73      .00   628.77     3.22     1.46    410.89
 16910.000   115.00      .00      .00   618.20    825.00   630.75      .00   630.77     2.07     1.34    883.23
 16910.000   115.00      .00      .00   618.20    929.00   631.20      .00   631.22     2.03     1.37   1136.87
 16910.000   115.00      .00      .00   618.20   1113.00   631.95      .00   631.98     1.92     1.40   1562.06
 16910.000   115.00      .00      .00   618.20   1321.00   632.79      .00   632.81     1.75     1.40   2039.75
 16910.000   115.00      .00      .00   618.20   1489.00   633.84      .00   633.86     1.36     1.31   2637.93

 17205.000   295.00      .00      .00   619.10    598.00   628.83      .00   628.86     2.73     1.21    494.09
 17205.000   295.00      .00      .00   619.10    825.00   630.81      .00   630.83     1.99     1.20   1409.03
 17205.000   295.00      .00      .00   619.10    929.00   631.26      .00   631.28     2.00     1.25   1960.37
 17205.000   295.00      .00      .00   619.10   1113.00   632.01      .00   632.03     1.99     1.31   2882.35
 17205.000   295.00      .00      .00   619.10   1321.00   632.84      .00   632.87     1.92     1.36   3907.19
 17205.000   295.00      .00      .00   619.10   1489.00   633.89      .00   633.91     1.57     1.31   5193.12

 17455.000   250.00      .00      .00   619.00    598.00   628.90      .00   628.93     2.92     1.30    468.60
 17455.000   250.00      .00      .00   619.00    825.00   630.86      .00   630.88     2.11     1.29    677.68
 17455.000   250.00      .00      .00   619.00    929.00   631.31      .00   631.33     2.12     1.34    742.41
 17455.000   250.00      .00      .00   619.00   1113.00   632.06      .00   632.09     2.07     1.39    853.56
 17455.000   250.00      .00      .00   619.00   1321.00   632.89      .00   632.92     1.93     1.42    980.35
 17455.000   250.00      .00      .00   619.00   1489.00   633.92      .00   633.95     1.53     1.34   1140.38

 17705.000   250.00      .00      .00   619.10    598.00   628.98      .00   629.01     3.88     1.41    427.07
 17705.000   250.00      .00      .00   619.10    825.00   630.92      .00   630.95     2.77     1.41   1047.18
 17705.000   250.00      .00      .00   619.10    929.00   631.37      .00   631.40     2.75     1.45   1351.76
 17705.000   250.00      .00      .00   619.10   1113.00   632.12      .00   632.14     2.46     1.45   1922.99
 17705.000   250.00      .00      .00   619.10   1321.00   632.95      .00   632.97     2.02     1.39   2562.03
 17705.000   250.00      .00      .00   619.10   1489.00   633.97      .00   633.98     1.36     1.21   3361.91

 18020.000   315.00      .00      .00   619.80    598.00   629.11      .00   629.14     4.17     1.35    447.00
 18020.000   315.00      .00      .00   619.80    825.00   631.01      .00   631.04     3.09     1.32    670.38
 18020.000   315.00      .00      .00   619.80    929.00   631.46      .00   631.49     3.10     1.36    847.63
 18020.000   315.00      .00      .00   619.80   1113.00   632.20      .00   632.23     2.97     1.40   1211.32
 18020.000   315.00      .00      .00   619.80   1321.00   633.02      .00   633.04     2.63     1.40   1832.08
 18020.000   315.00      .00      .00   619.80   1489.00   634.02      .00   634.04     1.87     1.28   2814.22
```

```
ECNO     XLCH      ELTRD      ELLC      ELMIN       Q       CWSEL     CRIWS      EG      10K*S      VCH      AREA     .01K

5.000   335.00      .00        .00     620.00    574.00    629.26      .00    629.31      6.08     1.79    317.18   232.81
5.000   335.00      .00        .00     620.00    811.00    631.12      .00    631.18      5.21     1.85    428.18   355.40
5.000   335.00      .00        .00     620.00    915.00    631.57      .00    631.63      5.44     1.95    457.52   392.24
5.000   335.00      .00        .00     620.00   1097.00    632.30      .00    632.38      5.69     2.11    510.20   459.94
5.000   335.00      .00        .00     620.00   1293.00    633.10      .00    633.18      5.57     2.20    594.04   548.07
5.000   335.00      .00        .00     620.00   1462.00    634.09      .00    634.13      4.13     2.02    971.43   719.77

35.000   230.00      .00        .00     620.50    574.00    629.41      .00    629.47      7.22     1.91    298.43   213.61
35.000   230.00      .00        .00     620.50    811.00    631.25      .00    631.31      6.09     1.96    405.07   328.71
35.000   230.00      .00        .00     620.50    915.00    631.70      .00    631.77      6.39     2.05    433.76   361.93
35.000   230.00      .00        .00     620.50   1097.00    632.44      .00    632.52      6.63     2.21    483.67   426.02
35.000   230.00      .00        .00     620.50   1293.00    633.23      .00    633.32      6.58     2.34    545.61   504.13
35.000   230.00      .00        .00     620.50   1462.00    634.18      .00    634.25      5.21     2.21    708.68   640.78

35.000   100.00      .00        .00     620.50    574.00    629.50      .00    629.61     20.73     2.69    213.70   126.06
35.000   100.00      .00        .00     620.50    811.00    631.32      .00    631.44     17.89     2.82    289.14   191.74
35.000   100.00      .00        .00     620.50    915.00    631.78      .00    631.90     16.87     2.85    346.32   222.79
35.000   100.00      .00        .00     620.50   1097.00    632.52      .00    632.60     10.95     2.45    502.26   331.57
35.000   100.00      .00        .00     620.50   1293.00    633.34      .00    633.40      6.28     1.98    678.25   516.12
35.000   100.00      .00        .00     620.50   1462.00    634.26      .00    634.30      3.46     1.57    875.03   785.57

35.000    50.00    631.50     630.80    620.50    574.00    629.51      .00    629.62     20.63     2.68    214.08   126.37
35.000    50.00    631.50     630.80    620.50    811.00    631.50      .00    631.61     16.56     2.75    294.51   199.31
35.000    50.00    631.50     630.80    620.50    915.00    631.98      .00    632.08     13.91     2.64    385.01   245.34
35.000    50.00    631.50     630.80    620.50   1097.00    632.65      .00    632.72      9.47     2.31    529.74   356.41
35.000    50.00    631.50     630.80    620.50   1293.00    633.43      .00    633.49      5.73     1.91    697.84   540.15
35.000    50.00    631.50     630.80    620.50   1462.00    634.35      .00    634.39      3.21     1.53    894.64   815.06

85.000    50.00      .00        .00     619.30    574.00    629.63      .00    629.71     11.16     2.15    266.07   171.81
85.000    50.00      .00        .00     619.30    811.00    631.65      .00    631.68      4.62     1.64   1255.48   377.27
85.000    50.00      .00        .00     619.30    915.00    632.11      .00    632.13      3.69     1.52   1674.63   476.04
85.000    50.00      .00        .00     619.30   1097.00    632.75      .00    632.76      2.95     1.42   2251.33   638.83
85.000    50.00      .00        .00     619.30   1293.00    633.50      .00    633.52      2.22     1.30   2938.45   867.01
85.000    50.00      .00        .00     619.30   1462.00    634.40      .00    634.41      1.53     1.14   3754.27  1183.02

00.000   215.00      .00        .00     620.60    574.00    629.84      .00    629.88      5.83     1.48    387.03   237.77
00.000   215.00      .00        .00     620.60    811.00    631.74      .00    631.78      4.48     1.50    559.08   383.30
00.000   215.00      .00        .00     620.60    915.00    632.19      .00    632.22      4.52     1.55    651.64   430.59
00.000   215.00      .00        .00     620.60   1097.00    632.81      .00    632.84      4.34     1.58    912.06   526.53
00.000   215.00      .00        .00     620.60   1293.00    633.55      .00    633.58      3.48     1.50   1316.17   693.13
00.000   215.00      .00        .00     620.60   1462.00    634.44      .00    634.45      2.38     1.32   1829.85   948.37

35.000   335.00      .00        .00     622.20    574.00    630.09      .00    630.15     11.61     1.99    288.58   168.45
35.000   335.00      .00        .00     622.20    811.00    631.93      .00    631.99      8.91     1.99    406.95   271.65
35.000   335.00      .00        .00     622.20    915.00    632.38      .00    632.44      9.25     2.09    438.20   300.86
35.000   335.00      .00        .00     622.20   1097.00    632.99      .00    633.06      9.45     2.20    559.52   356.77
35.000   335.00      .00        .00     622.20   1293.00    633.70      .00    633.75      7.55     2.08    853.71   470.51
35.000   335.00      .00        .00     622.20   1462.00    634.53      .00    634.57      4.87     1.80   1372.03   662.32
```

```
    SECNO      XLCH      ELTRD     ELLC      ELMIN        Q       CWSEL     CRIWS       EG       10K*S       VCH      AREA

 19625.000   290.00      .00       .00     622.50    574.00    630.41      .00     630.48     10.83      2.15    264.19
 19625.000   290.00      .00       .00     622.50    811.00    632.16      .00     632.24      7.89      2.10    373.43
 19625.000   290.00      .00       .00     622.50    915.00    632.61      .00     632.69      7.80      2.18    408.69
 19625.000   290.00      .00       .00     622.50   1097.00    633.23      .00     633.32      7.91      2.31    478.31
 19625.000   290.00      .00       .00     622.50   1293.00    633.89      .00     633.98      7.16      2.32    663.40
 19625.000   290.00      .00       .00     622.50   1462.00    634.66      .00     634.73      5.25      2.10   1001.84

 20145.000   520.00      .00       .00     623.10    574.00    630.83      .00     630.86      5.11      1.36    422.92
 20145.000   520.00      .00       .00     623.10    811.00    632.51      .00     632.54      4.19      1.41    595.71
 20145.000   520.00      .00       .00     623.10    915.00    633.00      .00     633.03      5.28      1.46    690.68
 20145.000   520.00      .00       .00     623.10   1097.00    633.63      .00     633.67      5.51      1.56    831.20
 20145.000   520.00      .00       .00     623.10   1293.00    634.27      .00     634.31      5.57      1.64   1000.88
 20145.000   520.00      .00       .00     623.10   1462.00    634.96      .00     635.00      5.19      1.66   1219.04

 20146.000     1.00      .00       .00     626.10    574.00    630.74      .00     630.90     45.52      3.23    208.32
 20146.000     1.00      .00       .00     626.10    811.00    632.43      .00     632.57     37.41      2.94    899.48
 20146.000     1.00      .00       .00     626.10    915.00    632.94      .00     633.06     37.79      2.84   1130.53
 20146.000     1.00      .00       .00     626.10   1097.00    633.57      .00     633.69     32.38      2.83   1435.18
 20146.000     1.00      .00       .00     626.10   1293.00    634.21      .00     634.34     28.21      2.83   1754.59
 20146.000     1.00      .00       .00     626.10   1462.00    634.91      .00     635.02     22.88      2.71   2113.15

 20255.000   109.00      .00       .00     626.10    574.00    631.20      .00     631.33     31.80      2.85    201.16
 20255.000   109.00      .00       .00     626.10    811.00    632.85      .00     632.96     32.70      2.62    310.00
 20255.000   109.00      .00       .00     626.10    915.00    633.32      .00     633.42     28.34      2.58    355.06
 20255.000   109.00      .00       .00     626.10   1097.00    633.91      .00     634.01     26.11      2.64    415.86
 20255.000   109.00      .00       .00     626.10   1293.00    634.51      .00     634.62     23.99      2.68    482.11
 20255.000   109.00      .00       .00     626.10   1462.00    635.15      .00     635.26     20.53      2.63    556.86

 20355.000   100.00      .00       .00     622.10    574.00    631.40      .00     631.41      2.06       .97    592.30
 20355.000   100.00      .00       .00     622.10    811.00    633.02      .00     633.03      1.98      1.06    767.02
 20355.000   100.00      .00       .00     622.10    915.00    633.48      .00     633.50      2.07      1.12    818.18
 20355.000   100.00      .00       .00     622.10   1097.00    634.07      .00     634.09      2.33      1.24    884.73
 20355.000   100.00      .00       .00     622.10   1293.00    634.68      .00     634.70      2.55      1.36    953.40
 20355.000   100.00      .00       .00     622.10   1462.00    635.31      .00     635.34      2.56      1.43   1025.11

 20435.000    80.00    636.50    634.50    622.10    574.00    631.40      .00     631.41      2.06       .97    592.48
 20435.000    80.00    636.50    634.50    622.10    811.00    633.02      .00     633.04      1.98      1.06    767.28
 20435.000    80.00    636.50    634.50    622.10    915.00    633.48      .00     633.50      2.06      1.12    818.45
 20435.000    80.00    636.50    634.50    622.10   1097.00    634.07      .00     634.10      2.32      1.24    885.07
 20435.000    80.00    636.50    634.50    622.10   1293.00    634.71      .00     634.73      2.52      1.35    956.88
 20435.000    80.00    636.50    634.50    622.10   1462.00    635.35      .00     635.38      2.52      1.42   1030.11

 20515.000    80.00      .00       .00     622.50    574.00    631.42      .00     631.43      2.35      1.03    554.95
 20515.000    80.00      .00       .00     622.50    811.00    633.04      .00     633.06      2.35      1.12    725.00
 20515.000    80.00      .00       .00     622.50    915.00    633.50      .00     633.52      2.43      1.18    775.31
 20515.000    80.00      .00       .00     622.50   1097.00    634.09      .00     634.12      2.71      1.30    843.58
 20515.000    80.00      .00       .00     622.50   1293.00    634.73      .00     634.76      2.89      1.41    927.86
 20515.000    80.00      .00       .00     622.50   1462.00    635.37      .00     635.40      2.76      1.44   1057.77
```

```
ECNO     XLCH     ELTRD     ELLC     ELMIN      Q       CWSEL    CRIWS     EG      10K*S     VCH      AREA     .01K

95.000    80.00      .00      .00    624.30   574.00    631.43     .00    631.50    16.32     2.05    280.37   142.09
95.000    80.00      .00      .00    624.30   811.00    633.05     .00    633.11    11.09     1.98    409.33   243.50
95.000    80.00      .00      .00    624.30   915.00    633.51     .00    633.58    10.42     2.04    449.33   283.49
95.000    80.00      .00      .00    624.30  1097.00    634.11     .00    634.18    10.44     2.19    502.37   339.46
95.000    80.00      .00      .00    624.30  1293.00    634.74     .00    634.82    10.25     2.33    558.84   403.83
95.000    80.00      .00      .00    624.30  1462.00    635.38     .00    635.47     9.47     2.38    629.46   475.20

45.000    50.00   635.20   633.50    624.30   574.00    631.47     .00    631.54    15.87     2.03    283.40   144.09
45.000    50.00   635.20   633.50    624.30   811.00    633.08     .00    633.14    10.88     1.97    411.75   245.90
45.000    50.00   635.20   633.50    624.30   915.00    633.61     .00    633.67     9.84     2.01    456.18   291.69
45.000    50.00   635.20   633.50    624.30  1097.00    634.27     .00    634.34     9.65     2.14    511.56   353.07
45.000    50.00   635.20   633.50    624.30  1293.00    634.98     .00    635.06     9.25     2.26    571.84   425.11
45.000    50.00   635.20   633.50    624.30  1462.00    635.66     .00    635.74     8.18     2.27    678.78   511.32

95.000    50.00      .00      .00    622.50   574.00    631.56     .00    631.59     4.54     1.32    435.59   269.51
95.000    50.00      .00      .00    622.50   811.00    633.15     .00    633.18     3.65     1.41    637.05   424.62
95.000    50.00      .00      .00    622.50   915.00    633.68     .00    633.71     3.54     1.47    792.84   486.17
95.000    50.00      .00      .00    622.50  1097.00    634.34     .00    634.38     3.30     1.50   1064.69   603.92
95.000    50.00      .00      .00    622.50  1293.00    635.07     .00    635.10     2.69     1.44   1384.32   788.61
95.000    50.00      .00      .00    622.50  1462.00    635.76     .00    635.78     2.11     1.34   1697.23  1007.08

30.000   135.00      .00      .00    627.00   554.00    631.53     .00    631.83   101.44     4.42    125.42    55.00
30.000   135.00      .00      .00    627.00   774.00    633.12     .00    633.37    55.81     3.99    193.82   103.61
30.000   135.00      .00      .00    627.00   872.00    633.64     .00    633.89    50.47     4.00    218.16   122.74
30.000   135.00      .00      .00    627.00  1048.00    634.29     .00    634.56    49.73     4.20    249.55   148.61
30.000   135.00      .00      .00    627.00  1257.00    634.98     .00    635.28    49.25     4.41    284.79   179.12
30.000   135.00      .00      .00    627.00  1421.00    635.64     .00    635.95    45.43     4.44    319.82   210.82

65.000   235.00      .00      .00    626.10   554.00    632.23     .00    632.27     6.88     1.50    384.89   211.21
65.000   235.00      .00      .00    626.10   774.00    633.54     .00    633.56     2.70     1.11    676.71   471.13
65.000   235.00      .00      .00    626.10   872.00    634.03     .00    634.05     2.05     1.02    801.17   608.86
65.000   235.00      .00      .00    626.10  1048.00    634.68     .00    634.69     1.56      .95   1022.05   839.00
65.000   235.00      .00      .00    626.10  1257.00    635.38     .00    635.39     1.18      .88   1289.83  1155.57
65.000   235.00      .00      .00    626.10  1421.00    636.03     .00    636.04      .88      .81   1550.58  1513.30

80.000   515.00      .00      .00    626.00   552.00    632.52     .00    632.54     4.21     1.24    460.95   269.12
80.000   515.00      .00      .00    626.00   773.00    633.66     .00    633.68     2.15     1.02    727.50   527.60
80.000   515.00      .00      .00    626.00   881.00    634.13     .00    634.14     1.75      .96    851.05   666.52
80.000   515.00      .00      .00    626.00  1056.00    634.75     .00    634.77     1.37      .91   1071.20   901.89
80.000   515.00      .00      .00    626.00  1254.00    635.44     .00    635.45     1.04      .84   1339.96  1226.73
80.000   515.00      .00      .00    626.00  1417.00    636.07     .00    636.08      .80      .78   1596.34  1585.64

85.000   305.00      .00      .00    625.50   552.00    632.69     .00    632.75    11.87     2.06    281.02   160.25
85.000   305.00      .00      .00    625.50   773.00    633.75     .00    633.81     8.29     1.96    393.42   268.50
85.000   305.00      .00      .00    625.50   881.00    634.19     .00    634.25     7.39     1.94    443.12   324.07
85.000   305.00      .00      .00    625.50  1056.00    634.80     .00    634.86     6.44     1.92    531.49   416.01
85.000   305.00      .00      .00    625.50  1254.00    635.47     .00    635.52     4.82     1.77    737.27   570.95
85.000   305.00      .00      .00    625.50  1417.00    636.09     .00    636.13     3.25     1.53    994.59   786.00
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN        Q       CWSEL      CRIWS       EG       10K*S       VCH       AREA    .(

  21995.000   110.00       .00       .00    625.60    552.00    632.81       .00    632.87     11.54      2.04     283.69   162
  21995.000   110.00       .00       .00    625.60    773.00    633.83       .00    633.89      8.39      1.97     391.95   266
  21995.000   110.00       .00       .00    625.60    881.00    634.26       .00    634.33      7.53      1.95     440.61   321
  21995.000   110.00       .00       .00    625.60   1056.00    634.86       .00    634.92      6.71      1.95     521.10   407
  21995.000   110.00       .00       .00    625.60   1254.00    635.52       .00    635.57      5.14      1.82     714.73   553
  21995.000   110.00       .00       .00    625.60   1417.00    636.13       .00    636.17      3.50      1.58     961.72   757

  22095.000   100.00       .00       .00    625.40    552.00    632.96       .00    633.06     29.77      2.49     221.58   101
  22095.000   100.00       .00       .00    625.40    773.00    633.93       .00    634.05     26.46      2.68     287.92   150
  22095.000   100.00       .00       .00    625.40    881.00    634.35       .00    634.47     25.77      2.78     317.02   173
  22095.000   100.00       .00       .00    625.40   1056.00    634.93       .00    635.07     25.50      2.94     359.38   209
  22095.000   100.00       .00       .00    625.40   1254.00    635.56       .00    635.71     24.73      3.07     407.98   252
  22095.000   100.00       .00       .00    625.40   1417.00    636.14       .00    636.30     23.09      3.12     453.91   294

  22135.000    40.00    651.70    645.00    625.40    552.00    632.98       .00    633.07     29.32      2.48     222.69   101
  22135.000    40.00    651.70    645.00    625.40    773.00    633.95       .00    634.06     26.09      2.67     289.25   151
  22135.000    40.00    651.70    645.00    625.40    881.00    634.37       .00    634.49     25.28      2.76     319.03   179
  22135.000    40.00    651.70    645.00    625.40   1056.00    634.96       .00    635.09     25.00      2.92     361.77   211
  22135.000    40.00    651.70    645.00    625.40   1254.00    635.59       .00    635.73     24.43      3.06     409.67   253
  22135.000    40.00    651.70    645.00    625.40   1417.00    636.17       .00    636.32     22.91      3.11     455.17   296

  22175.000    40.00       .00       .00    625.20    552.00    633.11       .00    633.19     25.38      2.26     244.41   109
  22175.000    40.00       .00       .00    625.20    773.00    634.07       .00    634.17     24.01      2.48     311.43   157
  22175.000    40.00       .00       .00    625.20    881.00    634.49       .00    634.59     23.69      2.58     341.54   180
  22175.000    40.00       .00       .00    625.20   1056.00    635.07       .00    635.19     23.88      2.74     385.00   216
  22175.000    40.00       .00       .00    625.20   1254.00    635.70       .00    635.83     23.75      2.89     433.54   257
  22175.000    40.00       .00       .00    625.20   1417.00    636.28       .00    636.42     22.62      2.96     479.25   297

  22385.000   210.00       .00       .00    626.00    552.00    633.47       .00    633.53     11.47      2.07     267.24   163
  22385.000   210.00       .00       .00    626.00    773.00    634.45       .00    634.54     13.66      2.42     319.96   209
  22385.000   210.00       .00       .00    626.00    881.00    634.87       .00    634.98     14.54      2.56     343.80   231
  22385.000   210.00       .00       .00    626.00   1056.00    635.48       .00    635.60     15.98      2.79     378.88   264
  22385.000   210.00       .00       .00    626.00   1254.00    636.12       .00    636.26     17.21      3.00     417.89   302
  22385.000   210.00       .00       .00    626.00   1417.00    636.68       .00    636.83     17.23      3.13     453.67   341

  22715.000   330.00       .00       .00    626.30    552.00    633.80       .00    633.85      7.92      1.81     305.72   196
  22715.000   330.00       .00       .00    626.30    773.00    634.85       .00    634.92      9.62      2.11     390.13   249
  22715.000   330.00       .00       .00    626.30    881.00    635.30       .00    635.38     10.30      2.24     469.91   274
  22715.000   330.00       .00       .00    626.30   1056.00    635.95       .00    636.04     11.36      2.43     626.33   313
  22715.000   330.00       .00       .00    626.30   1254.00    636.63       .00    636.74     12.28      2.62     804.60   357
  22715.000   330.00       .00       .00    626.30   1417.00    637.21       .00    637.32     12.66      2.73     964.10   398

  23105.000   390.00       .00       .00    626.80    552.00    634.15       .00    634.22     11.37      2.09     381.91   163
  23105.000   390.00       .00       .00    626.80    773.00    635.27       .00    635.36     13.17      2.40     497.52   213
  23105.000   390.00       .00       .00    626.80    881.00    635.75       .00    635.85     13.85      2.53     551.88   236
  23105.000   390.00       .00       .00    626.80   1056.00    636.44       .00    636.55     14.70      2.73     636.75   275
  23105.000   390.00       .00       .00    626.80   1254.00    637.14       .00    637.28     15.10      2.92     738.34   322
  23105.000   390.00       .00       .00    626.80   1417.00    637.72       .00    637.87     15.17      3.05     828.74   363
```

```
SECNO      XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL     CRIWS      EG     10K*S     VCH     AREA     .01K

60.000    255.00      .00      .00    626.20    552.00   634.37       .00   634.39     4.36     1.32    759.75   264.41
60.000    255.00      .00      .00    626.20    773.00   635.52       .00   635.56     4.74     1.51   1021.62   355.11
60.000    255.00      .00      .00    626.20    881.00   636.01       .00   636.05     4.91     1.59   1139.52   397.64
60.000    255.00      .00      .00    626.20   1056.00   636.72       .00   636.76     5.13     1.72   1334.00   466.12
60.000    255.00      .00      .00    626.20   1254.00   637.44       .00   637.50     5.33     1.85   1545.72   543.07
60.000    255.00      .00      .00    626.20   1417.00   638.04       .00   638.09     5.41     1.94   1722.47   609.33

60.000    300.00      .00      .00    627.30    552.00   634.52       .00   634.55     6.23     1.51    365.12   221.13
60.000    300.00      .00      .00    627.30    773.00   635.68       .00   635.73     6.62     1.70    455.60   300.34
60.000    300.00      .00      .00    627.30    881.00   636.18       .00   636.23     6.64     1.78    499.61   341.88
60.000    300.00      .00      .00    627.30   1056.00   636.89       .00   636.94     6.78     1.91    572.36   405.52
60.000    300.00      .00      .00    627.30   1254.00   637.62       .00   637.68     6.94     2.04    608.44   476.14
60.000    300.00      .00      .00    627.30   1417.00   638.21       .00   638.28     6.93     2.13    879.37   538.30

95.000    335.00      .00      .00    625.80    552.00   634.73       .00   634.77     6.66     1.56    382.51   213.86
95.000    335.00      .00      .00    625.80    773.00   635.91       .00   635.96     7.04     1.76    490.48   291.26
95.000    335.00      .00      .00    625.80    881.00   636.40       .00   636.46     7.16     1.85    539.68   329.22
95.000    335.00      .00      .00    625.80   1056.00   637.12       .00   637.18     7.20     1.99    632.31   393.46
95.000    335.00      .00      .00    625.80   1254.00   637.85       .00   637.92     7.27     2.14    779.10   464.94
95.000    335.00      .00      .00    625.80   1417.00   638.44       .00   638.52     7.26     2.24    945.97   525.93

85.000    190.00      .00      .00    627.00    378.00   634.86       .00   634.90     7.19     1.51    254.16   141.02
85.000    190.00      .00      .00    627.00    527.00   636.05       .00   636.07     4.49     1.36    808.58   248.84
85.000    190.00      .00      .00    627.00    597.00   636.54       .00   636.56     3.42     1.25   1550.13   322.75
85.000    190.00      .00      .00    627.00    746.00   637.26       .00   637.27     2.69     1.20   2653.55   454.45
85.000    190.00      .00      .00    627.00    878.00   638.00       .00   638.01     1.99     1.10   3799.00   622.29
85.000    190.00      .00      .00    627.00   1032.00   638.59       .00   638.60     1.70     1.07   4757.60   791.66

520.000   135.00      .00      .00    627.20    378.00   634.97       .00   635.01     8.83     1.55    247.03   127.18
520.000   135.00      .00      .00    627.20    527.00   636.11       .00   636.12     3.71     1.13    638.37   273.51
520.000   135.00      .00      .00    627.20    597.00   636.58       .00   636.59      .97      .61   1310.31   605.64
520.000   135.00      .00      .00    627.20    746.00   637.28       .00   637.28      .25      .33   2386.77  1493.99
520.000   135.00      .00      .00    627.20    878.00   638.01       .00   638.01      .10      .22   3522.07  2815.25
520.000   135.00      .00      .00    627.20   1032.00   638.60       .00   638.60      .06      .19   4463.57  4152.08

420.000   100.00      .00      .00    627.70    378.00   635.04       .00   635.06     3.17     1.20    314.11   212.46
420.000   100.00      .00      .00    627.70    527.00   636.13       .00   636.16     3.46     1.41    373.39   283.42
420.000   100.00      .00      .00    627.70    597.00   636.58       .00   636.61     3.62     1.50    397.02   313.94
420.000   100.00      .00      .00    627.70    746.00   637.27       .00   637.30     2.85     1.42    602.25   441.78
420.000   100.00      .00      .00    627.70    878.00   638.00       .00   638.02     1.84     1.21    823.81   646.48
420.000   100.00      .00      .00    627.70   1032.00   638.59       .00   638.61     1.44     1.12   1000.47   859.94

550.000   130.00   637.50   634.80   627.70    378.00   635.06       .00   635.08     3.14     1.20    314.96   213.42
550.000   130.00   637.50   634.80   627.70    527.00   636.19       .00   636.22     3.38     1.40    375.88   286.57
550.000   130.00   637.50   634.80   627.70    597.00   636.65       .00   636.69     3.50     1.49    401.10   319.33
550.000   130.00   637.50   634.80   627.70    746.00   637.41       .00   637.44     3.49     1.59    511.39   399.59
550.000   130.00   637.50   634.80   627.70    878.00   638.10       .00   638.12     1.68     1.16    852.14   677.94
550.000   130.00   637.50   634.80   627.70   1032.00   638.67       .00   638.69     1.34     1.08   1024.51   892.04
```

```
     SECNO      XLCH     ELTRD     ELLC     ELMIN       Q       CWSEL     CRIWS      EG      10K*S      VCH      AREA     .

  24685.000   135.00      .00       .00    627.90    378.00    635.11      .00    635.21    21.60     2.52    149.73   8
  24685.000   135.00      .00       .00    627.90    527.00    636.24      .00    636.36    21.53     2.77    200.03   11
  24685.000   135.00      .00       .00    627.90    597.00    636.71      .00    636.81    17.95     2.67    302.99   14
  24685.000   135.00      .00       .00    627.90    746.00    637.47      .00    637.55    13.07     2.48    599.80   20
  24685.000   135.00      .00       .00    627.90    878.00    638.12      .00    638.18     9.81     2.29    919.04   28
  24685.000   135.00      .00       .00    627.90   1032.00    638.69      .00    638.74     8.44     2.23   1210.61   35

  24855.000   170.00      .00       .00    627.80    378.00    635.44      .00    635.50    14.00     2.04   1003.18   10
  24855.000   170.00      .00       .00    627.80    527.00    636.53      .00    636.56     7.70     1.75   2643.22   18
  24855.000   170.00      .00       .00    627.80    597.00    636.96      .00    636.99     6.39     1.68   3436.44   23
  24855.000   170.00      .00       .00    627.80    746.00    637.66      .00    637.68     5.32     1.65   4804.60   32
  24855.000   170.00      .00       .00    627.80    878.00    638.27      .00    638.29     4.58     1.62   5996.20   41
  24855.000   170.00      .00       .00    627.80   1032.00    638.82      .00    638.84     4.31     1.65   7078.13   49

  25095.000   240.00      .00       .00    628.70    378.00    635.60      .00    635.66     3.91     2.07   1733.95   19
  25095.000   240.00      .00       .00    628.70    527.00    636.63      .00    636.68     3.01     2.05   4515.34   30
  25095.000   240.00      .00       .00    628.70    597.00    637.04      .00    637.09     2.75     2.04   5816.25   36
  25095.000   240.00      .00       .00    628.70    746.00    637.73      .00    637.77     2.57     2.11   8033.90   46
  25095.000   240.00      .00       .00    628.70    878.00    638.33      .00    638.37     2.38     2.14  10017.24   56
  25095.000   240.00      .00       .00    628.70   1032.00    638.88      .00    638.92     2.36     2.22  11839.45   67

  25315.000   220.00      .00       .00    628.10    378.00    635.69      .00    635.73     2.02     1.58   1758.39   26
  25315.000   220.00      .00       .00    628.10    527.00    636.70      .00    636.73     1.69     1.61   4805.29   40
  25315.000   220.00      .00       .00    628.10    597.00    637.11      .00    637.13     1.61     1.63   6193.29   47
  25315.000   220.00      .00       .00    628.10    746.00    637.79      .00    637.82     1.58     1.72   8563.65   59
  25315.000   220.00      .00       .00    628.10    878.00    638.38      .00    638.41     1.52     1.78  10679.24   71
  25315.000   220.00      .00       .00    628.10   1032.00    638.93      .00    638.96     1.54     1.87  12660.71   83

  25545.000   230.00      .00       .00    628.10    378.00    635.70      .00    635.86    13.04     3.18    471.50   10
  25545.000   230.00      .00       .00    628.10    527.00    636.68      .00    636.86    12.53     3.43   1492.71   14
  25545.000   230.00      .00       .00    628.10    597.00    637.08      .00    637.26    11.79     3.49   2008.57   17
  25545.000   230.00      .00       .00    628.10    746.00    637.76      .00    637.94    10.94     3.64   3032.86   22
  25545.000   230.00      .00       .00    628.10    878.00    638.36      .00    638.53     9.91     3.69   4035.24   27
  25545.000   230.00      .00       .00    628.10   1032.00    638.90      .00    639.08     9.55     3.82   4965.25   33

 .25605.000    60.00      .00       .00    628.30    378.00    635.92      .00    635.94     3.84     1.54    487.10   19
  25605.000    60.00      .00       .00    628.30    527.00    636.91      .00    636.92      .41      .56   1529.78   61
  25605.000    60.00      .00       .00    628.30    597.00    637.31      .00    637.32      .23      .44   2049.14  124
  25605.000    60.00      .00       .00    628.30    746.00    638.00      .00    638.00      .11      .33   3088.68  220
  25605.000    60.00      .00       .00    628.30    878.00    638.58      .00    638.59      .07      .28   4081.94  331
  25605.000    60.00      .00       .00    628.30   1032.00    639.14      .00    639.14      .05      .25   5020.46  456

  25705.000   100.00      .00       .00    626.80    378.00    635.94      .00    635.98     2.09     1.57    246.53   26
  25705.000   100.00      .00       .00    626.80    527.00    636.90      .00    636.95     2.43     1.83    310.50   33
  25705.000   100.00      .00       .00    626.80    597.00    637.29      .00    637.35     2.50     1.91    338.19   37
  25705.000   100.00      .00       .00    626.80    746.00    637.97      .00    638.03     2.73     2.10    385.43   45
  25705.000   100.00      .00       .00    626.80    878.00    638.55      .00    638.62     2.82     2.22    426.24   52
  25705.000   100.00      .00       .00    626.80   1032.00    639.10      .00    639.18     3.01     2.38    464.47   59
```

```
ECNO     XLCH     ELTRD     ELLC     ELMIN      Q       CWSEL    CRIWS     EG     10K*S    VCH     AREA     .01K

5.000    80.00   636.40   633.90   626.80   378.00   636.03      .00   636.07    2.09    1.58   239.52   261.39
5.000    80.00   636.40   633.90   626.80   527.00   637.07      .00   637.12    2.20    1.77   322.71   355.18
5.000    80.00   636.40   633.90   626.80   597.00   637.47      .00   637.52    2.28    1.85   350.35   395.73
5.000    80.00   636.40   633.90   626.80   746.00   638.15      .00   638.21    2.49    2.03   398.02   473.06
5.000    80.00   636.40   633.90   626.80   878.00   638.74      .00   638.81    2.58    2.15   439.34   546.88
5.000    80.00   636.40   633.90   626.80  1032.00   639.30      .00   639.37    2.75    2.30   478.41   621.96

5.000    80.00      .00      .00   629.20   378.00   636.02   632.42   636.15   15.27    2.93   288.52    96.74
5.000    80.00      .00      .00   629.20   527.00   637.06      .00   637.20   14.28    3.11  1931.21   139.48
5.000    80.00      .00      .00   629.20   597.00   637.46      .00   637.60   13.62    3.13  2743.82   161.75
5.000    80.00      .00      .00   629.20   746.00   638.15      .00   638.28   12.83    3.23  4313.97   208.26
5.000    80.00      .00      .00   629.20   878.00   638.75      .00   638.87   11.50    3.25  5866.40   258.87
5.000    80.00      .00      .00   629.20  1032.00   639.31      .00   639.44   10.93    3.34  7376.81   312.17

0.000    45.00      .00      .00   629.30   345.00   636.16      .00   636.20    5.74    2.00   325.22   144.00
0.000    45.00      .00      .00   629.30   474.00   637.22      .00   637.22     .23     .44  2041.51   980.11
0.000    45.00      .00      .00   629.30   543.00   637.61      .00   637.61     .12     .33  2850.78  1575.19
0.000    45.00      .00      .00   629.30   692.00   638.30      .00   638.30     .05     .23  4430.10  3001.13
0.000    45.00      .00      .00   629.30   824.00   638.89      .00   638.89     .03     .19  5950.84  4667.06
0.000    45.00      .00      .00   629.30   978.00   639.45      .00   639.45     .02     .17  7456.43  6601.93

0.000   220.00      .00      .00   629.10   345.00   636.27      .00   636.34    5.72    2.15   615.71   144.30
0.000   220.00      .00      .00   629.10   474.00   637.17      .00   637.26    6.06    2.40  2201.22   192.52
0.000   220.00      .00      .00   629.10   543.00   637.56      .00   637.65    6.21    2.54  3050.48   217.96
0.000   220.00      .00      .00   629.10   692.00   638.23      .00   638.33    6.47    2.78  4896.25   271.98
0.000   220.00      .00      .00   629.10   824.00   638.81      .00   638.92    6.32    2.91  6547.21   327.70
0.000   220.00      .00      .00   629.10   978.00   639.37      .00   639.49    6.38    3.07  8122.82   387.15

40.000  210.00      .00      .00   629.20   345.00   636.40      .00   636.47    7.22    2.20   289.67   128.41
40.000  210.00      .00      .00   629.20   474.00   637.31      .00   637.40    7.63    2.46  1078.83   171.59
40.000  210.00      .00      .00   629.20   543.00   637.69      .00   637.80    7.85    2.60  1537.59   193.75
40.000  210.00      .00      .00   629.20   692.00   638.37      .00   638.49    8.28    2.90  2482.87   240.49
40.000  210.00      .00      .00   629.20   824.00   638.94      .00   639.08    8.22    3.07  3318.53   287.33
40.000  210.00      .00      .00   629.20   978.00   639.50      .00   639.65    8.40    3.28  4121.65   337.38

30.000   90.00      .00      .00   631.40   345.00   636.44      .00   636.61   22.53    3.29   461.19    72.68
30.000   90.00      .00      .00   631.40   474.00   637.37      .00   637.52   17.31    3.24  1197.43   113.94
30.000   90.00      .00      .00   631.40   543.00   637.77      .00   637.90   15.96    3.20  1780.58   135.93
30.000   90.00      .00      .00   631.40   692.00   638.47      .00   638.59   13.18    3.14  3206.73   190.61
30.000   90.00      .00      .00   631.40   824.00   639.07      .00   639.17   10.87    3.07  4443.64   249.93
30.000   90.00      .00      .00   631.40   978.00   639.64      .00   639.74    9.63    3.08  5633.33   315.10

50.000  120.00      .00      .00   628.80   345.00   636.66      .00   636.72    4.34    1.86   244.28   165.63
50.000  120.00      .00      .00   628.80   474.00   637.56      .00   637.62    4.59    2.09   706.15   221.29
50.000  120.00      .00      .00   628.80   543.00   637.94      .00   638.01    4.73    2.21  1015.34   249.67
50.000  120.00      .00      .00   628.80   692.00   638.60      .00   638.68    4.92    2.43  1703.50   312.04
50.000  120.00      .00      .00   628.80   824.00   639.17      .00   639.26    4.88    2.56  2291.28   372.93
50.000  120.00      .00      .00   628.80   978.00   639.73      .00   639.82    5.01    2.72  2851.80   437.00
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG       10K*S       VCH       AREA      .

 26685.000    135.00       .00       .00     630.60    345.00    636.73       .00     636.83     15.90       3.00     723.87    86
 26685.000    135.00       .00       .00     630.60    474.00    637.66       .00     637.71      9.16       2.47    1748.52    15
 26685.000    135.00       .00       .00     630.60    543.00    638.05       .00     638.09      7.76       2.36    2319.96    19
 26685.000    135.00       .00       .00     630.60    692.00    638.73       .00     638.76      6.26       2.29    3413.49    27
 26685.000    135.00       .00       .00     630.60    824.00    639.30       .00     639.33      5.28       2.23    4355.78    35
 26685.000    135.00       .00       .00     630.60    978.00    639.87       .00     639.90      4.75       2.24    5275.75    44

 26935.000    250.00       .00       .00     630.20    345.00    637.10       .00     637.16     11.60       1.98     744.56    10
 26935.000    250.00       .00       .00     630.20    474.00    637.88       .00     637.92      9.33       1.97    1201.25    15
 26935.000    250.00       .00       .00     630.20    543.00    638.23       .00     638.28      8.33       1.95    1507.10    18
 26935.000    250.00       .00       .00     630.20    692.00    638.88       .00     638.92      7.21       1.95    2192.08    25
 26935.000    250.00       .00       .00     630.20    824.00    639.43       .00     639.47      6.31       1.93    2927.78    32
 26935.000    250.00       .00       .00     630.20    978.00    639.99       .00     640.02      5.74       1.95    3806.65    40

 27105.000    170.00       .00       .00     628.90    345.00    637.29       .00     637.34      9.87       1.95     538.58    10
 27105.000    170.00       .00       .00     628.90    474.00    638.03       .00     638.10     10.27       2.15    1348.13    14
 27105.000    170.00       .00       .00     628.90    543.00    638.37       .00     638.44      9.78       2.18    1891.33    17
 27105.000    170.00       .00       .00     628.90    692.00    639.00       .00     639.06      8.76       2.20    3119.69    23
 27105.000    170.00       .00       .00     628.90    824.00    639.54       .00     639.59      7.71       2.17    4380.65    29
 27105.000    170.00       .00       .00     628.90    978.00    640.08       .00     640.13      6.98       2.17    5828.92    37

 27215.000    110.00       .00       .00     630.00    345.00    637.40       .00     637.45      8.62       1.85     527.32    11
 27215.000    110.00       .00       .00     630.00    474.00    638.15       .00     638.20      7.46       1.88    1242.28    17
 27215.000    110.00       .00       .00     630.00    543.00    638.49       .00     638.53      6.93       1.89    1689.16    20
 27215.000    110.00       .00       .00     630.00    692.00    639.10       .00     639.14      6.30       1.92    2686.97    27
 27215.000    110.00       .00       .00     630.00    824.00    639.63       .00     639.66      5.72       1.92    3727.61    34
 27215.000    110.00       .00       .00     630.00    978.00    640.16       .00     640.20      5.36       1.95    4949.78    42

 27380.000    165.00       .00       .00     629.80    345.00    637.54       .00     637.56      5.86       1.43     891.55    142
 27380.000    165.00       .00       .00     629.80    474.00    638.27       .00     638.30      4.86       1.42    1736.91    215
 27380.000    165.00       .00       .00     629.80    543.00    638.60       .00     638.62      4.46       1.42    2221.45    25
 27380.000    165.00       .00       .00     629.80    692.00    639.20       .00     639.23      4.00       1.45    3262.68    34
 27380.000    165.00       .00       .00     629.80    824.00    639.72       .00     639.74      3.62       1.46    4297.79    43
 27380.000    165.00       .00       .00     629.80    978.00    640.25       .00     640.27      3.34       1.48    5492:16    53

 27455.000     75.00       .00       .00     630.40    345.00    637.58       .00     637.60      5.45       1.39    1587.81    147
 27455.000     75.00       .00       .00     630.40    474.00    638.31       .00     638.33      4.56       1.40    2787.54    221
 27455.000     75.00       .00       .00     630.40    543.00    638.63       .00     638.65      4.30       1.41    3435.67    261
 27455.000     75.00       .00       .00     630.40    692.00    639.24       .00     639.25      4.01       1.46    4706.24    345
 27455.000     75.00       .00       .00     630.40    824.00    639.75       .00     639.77      3.74       1.49    5840.27    426
 27455.000     75.00       .00       .00     630.40    978.00    640.27       .00     640.29      3.57       1.53    7050.23    517

 27695.000    240.00       .00       .00     629.90    345.00    637.72       .00     637.78      9.03       1.87     185.27    114
 27695.000    240.00       .00       .00     629.90    474.00    638.43       .00     638.50      9.98       2.15     285.22    150
 27695.000    240.00       .00       .00     629.90    543.00    638.75       .00     638.82     10.10       2.24     379.82    170
 27695.000    240.00       .00       .00     629.90    692.00    639.34       .00     639.41     10.00       2.38     579.49    218
 27695.000    240.00       .00       .00     629.90    824.00    639.84       .00     639.92      9.52       2.44     749.73    267
 27695.000    240.00       .00       .00     629.90    978.00    640.36       .00     640.44      9.16       2.51     925.66    323
```

```
SECNO     XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL     CRIWS      EG       10K*S      VCH      AREA      .01K

5.000    450.00       .00       .00     630.70    345.00    638.13       .00    638.19      9.29     1.97    356.90    113.20
5.000    450.00       .00       .00     630.70    474.00    638.86       .00    638.92      8.63     2.07   1106.80    161.34
5.000    450.00       .00       .00     630.70    543.00    639.18       .00    639.24      8.41     2.11   1589.84    187.26
5.000    450.00       .00       .00     630.70    692.00    639.77       .00    639.82      8.15     2.20   2733.58    242.35
5.000    450.00       .00       .00     630.70    824.00    640.26       .00    640.31      7.81     2.26   3894.28    294.87
5.000    450.00       .00       .00     630.70    978.00    640.77       .00    640.82      7.54     2.32   5132.68    356.09

90.000     45.00       .00       .00     630.90    345.00    638.17       .00    638.22      4.30     1.89    261.12    166.43
90.000     45.00       .00       .00     630.90    474.00    638.94       .00    638.94      1.09     1.05    937.94    453.41
90.000     45.00       .00       .00     630.90    543.00    639.25       .00    639.26       .62      .81   1382.83    691.22
90.000     45.00       .00       .00     630.90    692.00    639.84       .00    639.84       .26      .56   2451.71   1359.32
90.000     45.00       .00       .00     630.90    824.00    640.32       .00    640.33       .14      .43   3569.33   2209.20
90.000     45.00       .00       .00     630.90    978.00    640.83       .00    640.83       .08      .34   4803.17   3482.64

90.000    100.00       .00       .00     629.90    345.00    638.25       .00    638.27      2.86     1.08    321.54    203.86
90.000    100.00       .00       .00     629.90    474.00    638.95       .00    638.97      3.52     1.27    402.86    252.61
90.000    100.00       .00       .00     629.90    543.00    639.26       .00    639.28      3.73     1.33    444.71    281.13
90.000    100.00       .00       .00     629.90    692.00    639.83       .00    639.86      4.23     1.43    525.03    336.65
90.000    100.00       .00       .00     629.90    824.00    640.31       .00    640.34      4.19     1.48    592.19    402.61
90.000    100.00       .00       .00     629.90    978.00    640.82       .00    640.85      4.16     1.54    662.70    479.51

40.000     50.00    638.52    636.00     629.90    345.00    638.31       .00    638.32      2.75     1.07    327.62    208.06
40.000     50.00    637.90    636.00     629.90    474.00    639.05       .00    639.07      3.28     1.23    416.86    261.74
40.000     50.00    637.90    636.00     629.90    543.00    639.35       .00    639.38      3.59     1.29    457.93    286.43
40.000     50.00    637.90    636.00     629.90    692.00    639.93       .00    639.95      3.93     1.39    538.10    348.90
40.000     50.00    637.90    636.00     629.90    824.00    640.41       .00    640.44      3.92     1.45    605.25    416.28
40.000     50.00    637.90    636.00     629.90    978.00    640.92       .00    640.95      3.89     1.50    677.10    496.13

90.000     50.00       .00       .00     628.30    345.00    638.33       .00    638.33       .30      .42    808.83    629.09
90.000     50.00       .00       .00     628.30    474.00    639.08       .00    639.08       .32      .46    965.21    842.04
90.000     50.00       .00       .00     628.30    543.00    639.38       .00    639.39       .34      .48   1028.69    935.32
90.000     50.00       .00       .00     628.30    692.00    639.96       .00    639.96       .38      .53   1148.56   1123.87
90.000     50.00       .00       .00     628.30    824.00    640.44       .00    640.45       .41      .57   1248.49   1291.15
90.000     50.00       .00       .00     628.30    978.00    640.96       .00    640.96       .44      .61   1355.52   1480.44

85.000    195.00       .00       .00     629.20    345.00    638.34       .00    638.34       .69      .58    624.90    414.19
85.000    195.00       .00       .00     629.20    474.00    639.08       .00    639.09       .64      .60    780.62    593.54
85.000    195.00       .00       .00     629.20    543.00    639.39       .00    639.40       .65      .62    844.17    674.90
85.000    195.00       .00       .00     629.20    692.00    639.97       .00    639.98       .68      .67    964.26    840.67
85.000    195.00       .00       .00     629.20    824.00    640.45       .00    640.46       .69      .70   1064.50    990.53
85.000    195.00       .00       .00     629.20    978.00    640.97       .00    640.98       .71      .74   1171.88   1162.07

825.000    240.00       .00       .00     631.40    345.00    638.34       .00    638.40     10.56     1.83    208.94    106.16
825.000    240.00       .00       .00     631.40    474.00    639.09       .00    639.14      8.81     1.85    492.55    159.73
825.000    240.00       .00       .00     631.40    543.00    639.40       .00    639.44      8.00     1.83    656.58    191.93
825.000    240.00       .00       .00     631.40    692.00    639.99       .00    640.02      6.79     1.80   1002.30    265.58
825.000    240.00       .00       .00     631.40    824.00    640.47       .00    640.50      5.93     1.76   1292.86    338.49
825.000    240.00       .00       .00     631.40    978.00    640.99       .00    641.02      5.22     1.74   1607.79    428.25
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL     CRIWS       EG      10K*S       VCH       AREA

  29100.000   275.00      .00       .00     632.00    345.00    638.66      .00     638.72     13.17      1.96     176.33
  29100.000   275.00      .00       .00     632.00    474.00    639.35      .00     639.40     10.14      1.90     334.02
  29100.000   275.00      .00       .00     632.00    543.00    639.63      .00     639.66      7.49      1.69     458.35
  29100.000   275.00      .00       .00     632.00    692.00    640.15      .00     640.17      4.03      1.32     743.40
  29100.000   275.00      .00       .00     632.00    824.00    640.59      .00     640.61      2.42      1.07    1010.97
  29100.000   275.00      .00       .00     632.00    978.00    641.08      .00     641.09      1.57       .91    1302.97

  29200.000   100.00      .00       .00     631.30    345.00    638.78      .00     638.80      3.52      1.12     313.30
  29200.000   100.00      .00       .00     631.30    474.00    639.44      .00     639.47      4.37      1.31     375.61
  29200.000   100.00      .00       .00     631.30    543.00    639.69      .00     639.72      4.89      1.42     399.26
  29200.000   100.00      .00       .00     631.30    692.00    640.19      .00     640.22      5.67      1.61     446.54
  29200.000   100.00      .00       .00     631.30    824.00    640.61      .00     640.66      6.17      1.75     486.32
  29200.000   100.00      .00       .00     631.30    978.00    641.09      .00     641.14      6.54      1.88     531.68

  29250.000    50.00    638.99    636.60    631.30    345.00    638.84      .00     638.86      3.37      1.10     319.80
  29250.000    50.00    638.40    636.60    631.30    474.00    639.56      .00     639.59      4.10      1.28     386.39
  29250.000    50.00    638.40    636.60    631.30    543.00    639.82      .00     639.84      4.51      1.38     410.48
  29250.000    50.00    638.40    636.60    631.30    692.00    640.33      .00     640.36      5.20      1.56     459.22
  29250.000    50.00    638.40    636.60    631.30    824.00    640.76      .00     640.81      5.63      1.69     500.67
  29250.000    50.00    638.40    636.60    631.30    978.00    641.25      .00     641.30      5.98      1.82     546.89

  29300.000    50.00      .00       .00     631.60    345.00    638.86      .00     638.89      4.90      1.37     860.23
  29300.000    50.00      .00       .00     631.60    474.00    639.58      .00     639.61      4.85      1.48    1703.72
  29300.000    50.00      .00       .00     631.60    543.00    639.84      .00     639.87      5.13      1.56    2154.48
  29300.000    50.00      .00       .00     631.60    692.00    640.36      .00     640.39      5.55      1.71    3083.35
  29300.000    50.00      .00       .00     631.60    824.00    640.81      .00     640.84      5.70      1.80    3881.67
  29300.000    50.00      .00       .00     631.60    978.00    641.30      .00     641.34      5.78      1.90    4765.89

  29550.000   250.00      .00       .00     632.10    345.00    638.93      .00     638.94      1.25      1.14     557.88
  29550.000   250.00      .00       .00     632.10    474.00    639.64      .00     639.64       .61       .87    1112.53
  29550.000   250.00      .00       .00     632.10    543.00    639.89      .00     639.90       .50       .81    1419.72
  29550.000   250.00      .00       .00     632.10    692.00    640.41      .00     640.42       .30       .66    2287.33
  29550.000   250.00      .00       .00     632.10    824.00    640.85      .00     640.86       .19       .56    3079.73
  29550.000   250.00      .00       .00     632.10    978.00    641.35      .00     641.35       .13       .48    3966.80

  29555.000     5.00      .00       .00     632.70    345.00    638.91      .00     638.95      3.15      1.74     527.07
  29555.000     5.00      .00       .00     632.70    474.00    639.61      .00     639.66      3.22      1.93    1093.05
  29555.000     5.00      .00       .00     632.70    543.00    639.86      .00     639.92      3.44      2.06    1413.96
  29555.000     5.00      .00       .00     632.70    692.00    640.37      .00     640.43      3.75      2.28    2311.66
  29555.000     5.00      .00       .00     632.70    824.00    640.81      .00     640.88      3.89      2.43    3095.28
  29555.000     5.00      .00       .00     632.70    978.00    641.29      .00     641.37      3.95      2.57    3975.55

  29760.000   205.00      .00       .00     631.50    322.00    638.93      .00     638.97       .34      1.55     207.44
  29760.000   205.00      .00       .00     631.50    426.00    639.63      .00     639.68       .41      1.81     235.86
  29760.000   205.00      .00       .00     631.50    492.00    639.88      .00     639.94       .48      2.00     245.56
  29760.000   205.00      .00       .00     631.50    714.00    640.37      .00     640.48       .80      2.69     265.46
  29760.000   205.00      .00       .00     631.50    914.00    640.78      .00     640.94      1.09      3.24     282.23
  29760.000   205.00      .00       .00     631.50   1119.00    641.24      .00     641.46      1.35      3.72     301.15
```

```
ECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG       10K*S      VCH       AREA      .01K

0.000     40.00       .00       .00     631.50    322.00    638.93        .00     638.97       .34      1.55    207.73    551.89
0.000     40.00       .00       .00     631.50    426.00    639.63        .00     639.68       .41      1.81    235.77    668.21
0.000     40.00       .00       .00     631.50    492.00    639.88        .00     639.94       .48      2.00    245.87    711.65
0.000     40.00       .00       .00     631.50    714.00    640.37        .00     640.48       .80      2.69    265.83    799.64
0.000     40.00       .00       .00     631.50    914.00    640.78        .00     640.95      1.09      3.23    282.64    875.87
0.000     40.00       .00       .00     631.50   1119.00    641.25        .00     641.46      1.35      3.71    301.59    964.02

0.000    100.00       .00       .00     630.60    322.00    638.94        .00     638.98       .15      1.41    228.59    829.17
0.000    100.00       .00       .00     630.60    426.00    639.64        .00     639.69       .18      1.65    288.25    998.54
0.000    100.00       .00       .00     630.60    492.00    639.90        .00     639.95       .22      1.84    298.82   1053.80
0.000    100.00       .00       .00     630.60    714.00    640.40        .00     640.49       .37      2.50    325.52   1170.46
0.000    100.00       .00       .00     630.60    914.00    640.83        .00     640.96       .50      3.00    416.44   1291.53
0.000    100.00       .00       .00     630.60   1119.00    641.33        .00     641.49       .57      3.31    570.67   1486.36

0.000    160.00    640.20    637.80     630.60    322.00    638.99        .00     639.02       .15      1.40    230.38    840.08
0.000    160.00    640.20    637.80     630.60    426.00    639.74        .00     639.78       .19      1.68    254.20    989.73
0.000    160.00    640.20    637.80     630.60    492.00    640.03        .00     640.08       .22      1.87    263.38   1050.02
0.000    160.00    640.20    637.80     630.60    714.00    640.57        .00     640.66       .35      2.45    351.26   1214.60
0.000    160.00    640.20    637.80     630.60    914.00    640.88        .00     641.01       .49      2.97    430.97   1308.50
0.000    160.00    640.20    637.80     630.60   1119.00    641.33        .00     641.49       .57      3.31    570.69   1486.39

25.000   165.00       .00       .00     630.80    322.00    639.01        .00     639.03      2.75      1.27    253.97    194.25
25.000   165.00       .00       .00     630.80    426.00    639.76        .00     639.79      3.36      1.50    284.63    232.53
25.000   165.00       .00       .00     630.80    492.00    640.05        .00     640.09      3.89      1.66    297.22    249.45
25.000   165.00       .00       .00     630.80    714.00    640.61        .00     640.68      6.36      2.22    326.44    283.21
25.000   165.00       .00       .00     630.80    914.00    640.95        .00     641.04      8.29      2.60    394.59    317.41
25.000   165.00       .00       .00     630.80   1119.00    641.45        .00     641.53      7.34      2.54    546.08    412.98

25.000   100.00       .00       .00     632.90    322.00    639.02        .00     639.05      1.16      1.41    228.55    299.07
25.000   100.00       .00       .00     632.90    426.00    639.78        .00     639.82      1.21      1.60    270.78    386.93
25.000   100.00       .00       .00     632.90    492.00    640.07        .00     640.12      1.31      1.73    313.18    429.09
25.000   100.00       .00       .00     632.90    714.00    640.65        .00     640.71      1.80      2.16    410.09    531.78
25.000   100.00       .00       .00     632.90    914.00    641.00        .00     641.08      2.20      2.48    515.79    615.88
25.000   100.00       .00       .00     632.90   1119.00    641.49        .00     641.57      2.07      2.52    699.58    777.56

75.000    50.00    639.60    638.20     632.90    322.00    639.06        .00     639.09      1.13      1.40    229.59    303.28
75.000    50.00    639.60    638.20     632.90    426.00    639.85        .00     639.89      1.15      1.58    280.95    397.09
75.000    50.00    639.60    638.20     632.90    492.00    640.15        .00     640.19      1.24      1.70    325.28    441.53
75.000    50.00    639.60    638.20     632.90    714.00    640.74        .00     640.80      1.67      2.10    433.79    552.94
75.000    50.00    639.60    638.20     632.90    914.00    641.07        .00     641.15      2.05      2.41    544.80    639.14
75.000    50.00    639.60    638.20     632.90   1119.00    641.54        .00     641.62      1.98      2.48    718.30    796.08

25.000    50.00       .00       .00     630.90    322.00    639.08        .00     639.10       .73      1.18    545.72    377.69
25.000    50.00       .00       .00     630.90    426.00    639.89        .00     639.90       .59      1.17    993.91    556.57
25.000    50.00       .00       .00     630.90    492.00    640.19        .00     640.21       .60      1.23   1197.84    632.81
25.000    50.00       .00       .00     630.90    714.00    640.80        .00     640.82       .79      1.51   1660.68    801.49
25.000    50.00       .00       .00     630.90    914.00    641.15        .00     641.18      1.02      1.76   1954.34    906.98
25.000    50.00       .00       .00     630.90   1119.00    641.61        .00     641.64      1.13      1.93   2371.67   1054.92
```

```
   SECNO     XLCH     ELTRD     ELLC     ELMIN      Q       CWSEL     CRIWS      EG      10K*S     VCH     AREA    .0

 30595.000  170.00      .00      .00    631.10   322.00   639.10      .00   639.11      .71     1.14    468.43   382
 30595.000  170.00      .00      .00    631.10   426.00   639.91      .00   639.91      .38      .92    878.76   691
 30595.000  170.00      .00      .00    631.10   492.00   640.21      .00   640.22      .33      .90   1070.80   852
 30595.000  170.00      .00      .00    631.10   714.00   640.82      .00   640.83      .32      .94   1517.80  1265
 30595.000  170.00      .00      .00    631.10   914.00   641.18      .00   641.19      .34     1.01   1805.26  1557
 30595.000  170.00      .00      .00    631.10  1119.00   641.64      .00   641.65      .31     1.00   2214.90  2003

 30775.000  180.00      .00      .00    631.70   322.00   639.10      .00   639.14     1.60     1.57    229.03   254
 30775.000  180.00      .00      .00    631.70   426.00   639.90      .00   639.93     1.33     1.60    371.70   369
 30775.000  180.00      .00      .00    631.70   492.00   640.20      .00   640.24     1.35     1.68    454.59   423
 30775.000  180.00      .00      .00    631.70   714.00   640.80      .00   640.85     1.73     2.04    646.30   543
 30775.000  180.00      .00      .00    631.70   914.00   641.15      .00   641.22     2.16     2.37    773.18   621
 30775.000  180.00      .00      .00    631.70  1119.00   641.61      .00   641.68     2.34     2.58    956.25   731

 30935.000  160.00      .00      .00    631.80   322.00   639.13      .00   639.17     1.74     1.62    219.56   243
 30935.000  160.00      .00      .00    631.80   426.00   639.92      .00   639.95     1.37     1.61    349.02   363
 30935.000  160.00      .00      .00    631.80   492.00   640.22      .00   640.26     1.31     1.63    428.36   430
 30935.000  160.00      .00      .00    631.80   714.00   640.85      .00   640.88     1.35     1.79    627.03   613
 30935.000  160.00      .00      .00    631.80   914.00   641.21      .00   641.26     1.49     1.96    759.44   748
 30935.000  160.00      .00      .00    631.80  1119.00   641.69      .00   641.72     1.38     1.98    947.34   951

 31035.000  100.00      .00      .00    633.00   322.00   639.14      .00   639.19     1.77     1.73    186.23   241
 31035.000  100.00      .00      .00    633.00   426.00   639.92      .00   639.98     2.01     1.98    215.09   300
 31035.000  100.00      .00      .00    633.00   492.00   640.22      .00   640.29     2.32     2.18    225.95   323
 31035.000  100.00      .00      .00    633.00   714.00   640.82      .00   640.95     3.71     2.88    247.75   370
 31035.000  100.00      .00      .00    633.00   914.00   641.19      .00   641.33     4.30     3.16    419.72   440
 31035.000  100.00      .00      .00    633.00  1119.00   641.67      .00   641.78     3.72     3.05    630.88   580.

 31085.000   50.00   641.00   640.20    633.00   322.00   639.14      .00   639.19     1.77     1.73    186.21   241
 31085.000   50.00   641.00   640.20    633.00   426.00   639.93      .00   639.99     2.02     1.98    214.85   299.
 31085.000   50.00   641.00   640.20    633.00   492.00   640.28      .00   640.36     2.26     2.16    228.00   327.
 31085.000   50.00   641.00   640.20    633.00   714.00   640.98      .00   641.10     3.48     2.82    253.39   382.
 31085.000   50.00   641.00   640.20    633.00   914.00   641.43      .00   641.56     3.65     2.98    434.06   479.
 31085.000   50.00   641.00   640.20    633.00  1119.00   641.93      .00   642.00     2.85     2.64    743.60   662.

 31135.000   50.00      .00      .00    632.10   322.00   639.18      .00   639.20     1.04     1.46    382.38   315.
 31135.000   50.00      .00      .00    632.10   426.00   639.98      .00   640.00      .86     1.46    731.56   459.
 31135.000   50.00      .00      .00    632.10   492.00   640.36      .00   640.38      .84     1.50    950.26   537.
 31135.000   50.00      .00      .00    632.10   714.00   641.11      .00   641.14     1.00     1.77   1504.11   713.
 31135.000   50.00      .00      .00    632.10   914.00   641.56      .00   641.59     1.22     2.03   1897.61   827.
 31135.000   50.00      .00      .00    632.10  1119.00   641.98      .00   642.02     1.40     2.25   2321.57   944.

 31345.000  210.00      .00      .00    632.20   322.00   639.20      .00   639.23     1.12     1.50    360.64   304.
 31345.000  210.00      .00      .00    632.20   426.00   640.00      .00   640.02      .92     1.50    691.49   444.
 31345.000  210.00      .00      .00    632.20   492.00   640.37      .00   640.40      .89     1.54    903.50   521.
 31345.000  210.00      .00      .00    632.20   714.00   641.13      .00   641.16     1.06     1.80   1439.29   693.
 31345.000  210.00      .00      .00    632.20   914.00   641.58      .00   641.62     1.28     2.06   1827.95   807.
 31345.000  210.00      .00      .00    632.20  1119.00   642.01      .00   642.05     1.46     2.29   2256.45   926.
```

```
ECNO     XLCH     ELTRD     ELLC     ELMIN      Q       CWSEL    CRIWS     EG     10K*S     VCH     AREA     .01K

5.000   270.00     .00      .00     632.30   322.00   639.23     .00    639.26    1.21     1.55   338.42   292.29
5.000   270.00     .00      .00     632.30   426.00   640.02     .00    640.05     .99     1.54   649.82   428.88
5.000   270.00     .00      .00     632.30   492.00   640.40     .00    640.42     .96     1.58   852.68   503.45
5.000   270.00     .00      .00     632.30   714.00   641.16     .00    641.19    1.12     1.84  1381.53   676.06
5.000   270.00     .00      .00     632.30   914.00   641.62     .00    641.65    1.34     2.10  1767.20   790.33
5.000   270.00     .00      .00     632.30  1119.00   642.05     .00    642.10    1.52     2.32  2185.45   907.31

5.000   100.00     .00      .00     632.50   322.00   639.24     .00    639.27    1.42     1.51   213.36   270.15
5.000   100.00     .00      .00     632.50   426.00   640.03     .00    640.07    1.49     1.69   252.56   349.27
5.000   100.00     .00      .00     632.50   492.00   640.40     .00    640.45    1.56     1.81   274.49   393.98
5.000   100.00     .00      .00     632.50   714.00   641.15     .00    641.23    2.11     2.29   327.47   491.99
5.000   100.00     .00      .00     632.50   914.00   641.60     .00    641.71    2.64     2.69   384.55   562.63
5.000   100.00     .00      .00     632.50  1119.00   642.03     .00    642.16    2.97     2.97   471.58   648.92

55.000   50.00   640.50   639.80    632.50   322.00   639.24     .00    639.27    1.42     1.51   213.32   270.07
55.000   50.00   640.50   639.80    632.50   426.00   640.06     .00    640.10    1.47     1.68   253.70   351.90
55.000   50.00   640.50   639.80    632.50   492.00   640.44     .00    640.49    1.53     1.80   272.92   397.44
55.000   50.00   640.50   639.80    632.50   714.00   641.23     .00    641.31    2.01     2.26   335.54   503.25
55.000   50.00   640.50   639.80    632.50   914.00   641.66     .00    641.77    2.54     2.65   394.54   573.69
55.000   50.00   640.50   639.80    632.50  1119.00   642.05     .00    642.18    2.93     2.96   477.14   654.12

15.000   50.00     .00      .00     632.10   322.00   639.24     .00    639.29    1.79     1.65   209.05   240.43
15.000   50.00     .00      .00     632.10   426.00   640.07     .00    640.11    1.65     1.71   361.53   332.02
15.000   50.00     .00      .00     632.10   492.00   640.46     .00    640.50    1.59     1.77   510.26   390.57
15.000   50.00     .00      .00     632.10   714.00   641.27     .00    641.32    1.69     2.01  1055.97   549.74
15.000   50.00     .00      .00     632.10   914.00   641.73     .00    641.79    1.95     2.27  1474.10   654.84
15.000   50.00     .00      .00     632.10  1119.00   642.13     .00    642.21    2.19     2.51  1882.00   756.71

85.000  170.00     .00      .00     632.20   322.00   639.27     .00    639.32    1.90     1.69   202.84   233.63
85.000  170.00     .00      .00     632.20   426.00   640.10     .00    640.14    1.61     1.68   340.55   336.23
85.000  170.00     .00      .00     632.20   492.00   640.50     .00    640.53    1.34     1.61   480.58   425.10
85.000  170.00     .00      .00     632.20   714.00   641.33     .00    641.35     .86     1.43  1017.71   771.39
85.000  170.00     .00      .00     632.20   914.00   641.80     .00    641.82     .70     1.36  1445.43  1091.08
85.000  170.00     .00      .00     632.20  1119.00   642.22     .00    642.23     .57     1.28  1865.33  1475.97

00.000  315.00     .00      .00     633.30   322.00   639.33     .00    639.42    4.77     2.36   136.39   147.50
00.000  315.00     .00      .00     633.30   426.00   640.13     .00    640.23    4.07     2.51   177.94   211.12
00.000  315.00     .00      .00     633.30   492.00   640.51     .00    640.62    4.00     2.63   202.29   245.92
00.000  315.00     .00      .00     633.30   714.00   641.29     .00    641.44    4.59     3.12   263.17   333.12
00.000  315.00     .00      .00     633.30   914.00   641.73     .00    641.91    5.45     3.58   299.35   391.60
00.000  315.00     .00      .00     633.30  1119.00   642.11     .00    642.34    6.27     4.00   330.93   446.82

90.000  290.00     .00      .00     633.50   322.00   639.47     .00    639.56    5.02     2.40   134.01   143.66
90.000  290.00     .00      .00     633.50   426.00   640.25     .00    640.36    4.38     2.57   172.72   203.50
90.000  290.00     .00      .00     633.50   492.00   640.63     .00    640.74    4.28     2.68   196.63   237.90
90.000  290.00     .00      .00     633.50   714.00   641.43     .00    641.58    4.83     3.18   257.68   324.72
90.000  290.00     .00      .00     633.50   914.00   641.89     .00    642.08    5.61     3.61   295.90   385.79
90.000  290.00     .00      .00     633.50  1119.00   642.29     .00    642.52    6.35     4.02   329.42   444.09
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN        Q        CWSEL      CRIWS       EG       10K*S       VCH       AREA      .

  32690.000   100.00       .00       .00     634.00    322.00     639.57       .00     639.61      1.81      1.60     200.78    23
  32690.000   100.00       .00       .00     634.00    426.00     640.35       .00     640.40      1.82      1.77     240.01    31
  32690.000   100.00       .00       .00     634.00    492.00     640.73       .00     640.79      1.92      1.90     259.22    35
  32690.000   100.00       .00       .00     634.00    714.00     641.54       .00     641.63      2.48      2.38     302.08    45
  32690.000   100.00       .00       .00     634.00    914.00     642.01       .00     642.14      3.12      2.80     337.39    51
  32690.000   100.00       .00       .00     634.00   1119.00     642.44       .00     642.59      3.66      3.17     390.08    58

  32740.000    50.00    642.20    640.80     634.00    322.00     639.57       .00     639.61      1.81      1.60     200.78    23
  32740.000    50.00    642.20    640.80     634.00    426.00     640.35       .00     640.40      1.82      1.77     240.01    31
  32740.000    50.00    642.20    640.80     634.00    492.00     640.73       .00     640.79      1.92      1.90     259.22    35
  32740.000    50.00    642.20    640.80     634.00    714.00     641.61       .00     641.69      2.40      2.35     303.74    46
  32740.000    50.00    642.20    640.80     634.00    914.00     642.14       .00     642.26      2.95      2.76     331.03    53
  32740.000    50.00    642.20    640.80     634.00   1119.00     642.59       .00     642.73      3.34      3.07     413.58    61

  32790.000    50.00       .00       .00     632.90    322.00     639.56       .00     639.64      3.42      2.19     146.91    17
  32790.000    50.00       .00       .00     632.90    426.00     640.34       .00     640.43      3.70      2.42     176.16    22
  32790.000    50.00       .00       .00     632.90    492.00     640.72       .00     640.82      3.90      2.58     191.94    24
  32790.000    50.00       .00       .00     632.90    714.00     641.60       .00     641.74      4.73      3.03     263.71    32
  32790.000    50.00       .00       .00     632.90    914.00     642.14       .00     642.30      4.90      3.30     343.17    41
  32790.000    50.00       .00       .00     632.90   1119.00     642.60       .00     642.76      4.98      3.50     421.67    50

  33000.000   210.00       .00       .00     633.00    315.00     639.63       .00     639.71      3.36      2.17     145.38    17
  33000.000   210.00       .00       .00     633.00    415.00     640.42       .00     640.51      3.58      2.37     175.01    21
  33000.000   210.00       .00       .00     633.00    480.00     640.80       .00     640.90      3.75      2.52     191.25    24
  33000.000   210.00       .00       .00     633.00    692.00     641.70       .00     641.83      4.42      2.93     264.47    32
  33000.000   210.00       .00       .00     633.00    886.00     642.25       .00     642.40      4.59      3.20     343.62    41
  33000.000   210.00       .00       .00     633.00   1076.00     642.71       .00     642.87      4.58      3.36     422.79    50

  33170.000   170.00       .00       .00     632.30    315.00     639.71       .00     639.76      3.03      1.84     171.45    18
  33170.000   170.00       .00       .00     632.30    415.00     640.51       .00     640.57      2.92      1.93     214.47    24
  33170.000   170.00       .00       .00     632.30    480.00     640.90       .00     640.96      2.98      2.02     238.04    27
  33170.000   170.00       .00       .00     632.30    692.00     641.83       .00     641.90      2.73      2.20     381.29    41
  33170.000   170.00       .00       .00     632.30    886.00     642.40       .00     642.46      2.41      2.23     563.65    57
  33170.000   170.00       .00       .00     632.30   1076.00     642.87       .00     642.92      2.12      2.22     726.61    73

  33410.000   240.00       .00       .00     633.40    315.00     639.78       .00     639.84      3.01      2.03     155.41    13
  33410.000   240.00       .00       .00     633.40    415.00     640.57       .00     640.64      2.93      2.20     189.84    24
  33410.000   240.00       .00       .00     633.40    480.00     640.96       .00     641.04      2.95      2.33     217.38    27
  33410.000   240.00       .00       .00     633.40    692.00     641.88       .00     641.96      2.56      2.44     599.18    43
  33410.000   240.00       .00       .00     633.40    886.00     642.45       .00     642.52      2.44      2.54     991.19    56
  33410.000   240.00       .00       .00     633.40   1076.00     642.91       .00     642.98      2.39      2.63    1315.45    69

  33710.000   300.00       .00       .00     633.20    315.00     639.87       .00     639.93      2.86      1.97     159.61    18
  33710.000   300.00       .00       .00     633.20    415.00     640.66       .00     640.73      2.98      2.15     193.48    24
  33710.000   300.00       .00       .00     633.20    480.00     641.05       .00     641.13      3.07      2.27     215.10    27
  33710.000   300.00       .00       .00     633.20    692.00     641.95       .00     642.05      3.07      2.57     324.23    39
  33710.000   300.00       .00       .00     633.20    886.00     642.51       .00     642.61      3.09      2.74     432.33    50
  33710.000   300.00       .00       .00     633.20   1076.00     642.97       .00     643.07      3.04      2.86     532.28    61
```

```
ECNO      XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL     CRIWS      EG     10K*S     VCH     AREA     .01K

5.000    165.00      .00      .00    634.10   315.00    639.90      .00    640.01     6.35     2.68   117.66   124.99
5.000    165.00      .00      .00    634.10   415.00    640.69      .00    640.82     6.24     2.84   146.36   166.19
5.000    165.00      .00      .00    634.10   480.00    641.08      .00    641.22     6.40     2.96   161.91   189.68
5.000    165.00      .00      .00    634.10   692.00    641.97      .00    642.15     7.62     3.46   199.91   250.63
5.000    165.00      .00      .00    634.10   886.00    642.49      .00    642.73     8.84     3.95   226.75   298.05
5.000    165.00      .00      .00    634.10  1076.00    642.92      .00    643.21     9.94     4.38   250.27   341.32

5.000    240.00      .00      .00    635.06   315.00    640.12      .00    640.29    20.38     3.36    93.68    69.78
5.000    240.00      .00      .00    635.06   415.00    640.90      .00    641.09    19.13     3.49   118.75    94.87
5.000    240.00      .00      .00    635.06   480.00    641.30      .00    641.50    19.16     3.62   132.71   109.67
5.000    240.00      .00      .00    635.06   692.00    642.22      .00    642.48    21.25     4.10   168.67   150.11
5.000    240.00      .00      .00    635.06   886.00    642.78      .00    643.11    24.41     4.59   193.09   179.31
5.000    240.00      .00      .00    635.06  1076.00    643.24      .00    643.63    26.62     5.02   215.41   208.56

5.000    100.00      .00      .00    636.50   315.00    640.37      .00    640.42     5.23     1.88   167.87   137.68
5.000    100.00      .00      .00    636.50   415.00    641.15      .00    641.22     5.09     2.05   202.13   183.90
5.000    100.00      .00      .00    636.50   480.00    641.55      .00    641.63     5.26     2.18   219.79   209.33
5.000    100.00      .00      .00    636.50   692.00    642.52      .00    642.63     6.36     2.64   262.21   274.34
5.000    100.00      .00      .00    636.50   886.00    643.14      .00    643.29     7.72     3.06   289.49   318.79
5.000    100.00      .00      .00    636.50  1076.00    643.65      .00    643.83     9.12     3.45   311.72   356.38

5.000     50.00   647.00   644.50    636.50   315.00    640.37      .00    640.43     5.21     1.87   168.13   139.02
5.000     50.00   647.00   644.50    636.50   415.00    641.16      .00    641.22     5.07     2.05   202.46   184.36
5.000     50.00   647.00   644.50    636.50   480.00    641.56      .00    641.64     5.23     2.18   220.16   209.87
5.000     50.00   647.00   644.50    636.50   692.00    642.53      .00    642.64     6.32     2.63   262.77   275.23
5.000     50.00   647.00   644.50    636.50   886.00    643.16      .00    643.31     7.66     3.05   290.27   320.08
5.000     50.00   647.00   644.50    636.50  1076.00    643.67      .00    643.86     9.02     3.44   312.76   358.13

90.000   125.00      .00      .00    636.20   315.00    640.43      .00    640.47     1.82     1.52   207.63   233.47
90.000   125.00      .00      .00    636.20   415.00    641.22      .00    641.26     1.71     1.63   254.12   317.31
90.000   125.00      .00      .00    636.20   480.00    641.63      .00    641.68     1.73     1.72   278.97   365.17
90.000   125.00      .00      .00    636.20   692.00    642.63      .00    642.70     1.96     2.02   341.88   494.65
90.000   125.00      .00      .00    636.20   886.00    643.29      .00    643.37     2.25     2.30   385.71   591.17
90.000   125.00      .00      .00    636.20  1076.00    643.84      .00    643.94     2.51     2.55   422.55   678.70

00.000    10.00      .00      .00    640.10   315.00    642.84    642.84    643.71   128.24     7.45    42.26    27.82
00.000    10.00      .00      .00    640.10   415.00    643.21    643.21    644.22   119.97     8.03    51.66    37.89
00.000    10.00      .00      .00    640.10   480.00    643.59    643.59    644.48   122.06     7.60    63.15    43.45
00.000    10.00      .00      .00    640.10   692.00    644.08    644.08    645.21   117.85     8.54    81.03    63.74
00.000    10.00      .00      .00    640.10   886.00    644.50    644.50    645.80   112.70     9.16    96.75    83.46
00.000    10.00      .00      .00    640.10  1076.00    644.86    644.86    646.32   109.56     9.68   111.58   102.80

10.000    10.00      .00      .00    635.70   315.00    643.96      .00    643.96      .07      .43   729.45  1234.30
10.000    10.00      .00      .00    635.70   415.00    644.51      .00    644.52      .09      .52   792.22  1395.06
10.000    10.00      .00      .00    635.70   480.00    644.74      .00    644.75      .11      .59   819.09  1465.57
10.000    10.00      .00      .00    635.70   692.00    645.54      .00    645.55      .16      .76   913.79  1726.79
10.000    10.00      .00      .00    635.70   886.00    646.17      .00    646.19      .20      .89  1006.59  1975.03
10.000    10.00      .00      .00    635.70  1076.00    646.73      .00    646.75      .24     1.01  1100.82  2217.54
```

```
1
 09-06-88     11:52:03                                                                                          PAGE  92


     SECNO       XLCH      ELTRD     ELLC      ELMIN      Q        CWSEL     CRIWS      EG       10K*S      VCH      AREA

   34650.000    240.00      .00       .00     635.90    315.00    643.96      .00     643.97      .07       .45    707.14  117
   34650.000    240.00      .00       .00     635.90    415.00    644.51      .00     644.52      .10       .54    769.49  133
   34650.000    240.00      .00       .00     635.90    480.00    644.75      .00     644.75      .12       .60    796.22  140
   34650.000    240.00      .00       .00     635.90    692.00    645.54      .00     645.55      .17       .78    889.63  165
   34650.000    240.00      .00       .00     635.90    886.00    646.18      .00     646.19      .22       .92    975.67  189
   34650.000    240.00      .00       .00     635.90   1076.00    646.74      .00     646.76      .26      1.04   1066.81  213

   34800.000    150.00      .00       .00     636.20    315.00    643.96      .00     643.97      .08       .47    673.88  109
   34800.000    150.00      .00       .00     636.20    415.00    644.52      .00     644.52      .11       .56    735.53  124
   34800.000    150.00      .00       .00     636.20    480.00    644.75      .00     644.76      .13       .63    762.01  131
   34800.000    150.00      .00       .00     636.20    692.00    645.55      .00     645.56      .20       .81    854.34  155
   34800.000    150.00      .00       .00     636.20    886.00    646.18      .00     646.20      .25       .95    932.12  177
   34800.000    150.00      .00       .00     636.20   1076.00    646.74      .00     646.76      .29      1.08   1017.77  200

   34900.000    100.00      .00       .00     634.50    315.00    643.96      .00     643.98      .41      1.17    268.12   49
   34900.000    100.00      .00       .00     634.50    415.00    644.50      .00     644.54      .60      1.46    284.09   53
   34900.000    100.00      .00       .00     634.50    480.00    644.73      .00     644.78      .75      1.65    290.87   55
   34900.000    100.00      .00       .00     634.50    692.00    645.52      .00     645.59     1.21      2.21    313.60   62
   34900.000    100.00      .00       .00     634.50    886.00    646.14      .00     646.25     1.64      2.67    335.36   69
   34900.000    100.00      .00       .00     634.50   1076.00    646.68      .00     646.83     2.07      3.09    355.59   74

   34950.000     50.00    646.40    645.00    634.50    315.00    643.96      .00     643.98      .41      1.18    267.88   49
   34950.000     50.00    646.40    645.00    634.50    415.00    644.50      .00     644.54      .60      1.46    283.90   53
   34950.000     50.00    646.40    645.00    634.50    480.00    644.73      .00     644.78      .75      1.65    290.63   55
   34950.000     50.00    646.40    645.00    634.50    692.00    645.58      .00     645.66     1.19      2.19    315.56   63
   34950.000     50.00    646.40    645.00    634.50    886.00    646.26      .00     646.37     1.59      2.64    335.41   70
   34950.000     50.00    646.40    645.00    634.50   1076.00    646.88      .00     647.02     1.95      3.03    371.07   77

   35000.000     50.00      .00       .00     634.90    315.00    643.98      .00     643.98      .04       .33    971.70  165
   35000.000     50.00      .00       .00     634.90    415.00    644.54      .00     644.55      .05       .40   1065.01  189
   35000.000     50.00      .00       .00     634.90    480.00    644.79      .00     644.79      .06       .44   1107.26  200
   35000.000     50.00      .00       .00     634.90    692.00    645.68      .00     645.68      .08       .56   1274.01  242
   35000.000     50.00      .00       .00     634.90    886.00    646.40      .00     646.40      .10       .65   1420.64  252
   35000.000     50.00      .00       .00     634.90   1076.00    647.06      .00     647.06      .11       .73   1603.02  322

   35140.000    140.00      .00       .00     635.20    315.00    643.98      .00     643.99      .04       .34    924.61  153
   35140.000    140.00      .00       .00     635.20    415.00    644.55      .00     644.55      .06       .41   1015.21  176
   35140.000    140.00      .00       .00     635.20    480.00    644.79      .00     644.79      .07       .46   1055.89  186
   35140.000    140.00      .00       .00     635.20    692.00    645.68      .00     645.68      .09       .58   1218.35  228
   35140.000    140.00      .00       .00     635.20    886.00    646.40      .00     646.40      .11       .68   1356.71  265
   35140.000    140.00      .00       .00     635.20   1076.00    647.06      .00     647.07      .13       .75   1513.03  3040

   35510.000    370.00      .00       .00     637.30    315.00    643.98      .00     643.99      .39       .84    384.20   505
   35510.000    370.00      .00       .00     637.30    415.00    644.54      .00     644.56      .45       .95    470.85   617
   35510.000    370.00      .00       .00     637.30    480.00    644.78      .00     644.80      .50      1.03    515.85   680
   35510.000    370.00      .00       .00     637.30    692.00    645.68      .00     645.70      .51      1.16    724.75   971
   35510.000    370.00      .00       .00     637.30    886.00    646.40      .00     646.42      .46      1.19    982.89  1305
   35510.000    370.00      .00       .00     637.30   1076.00    647.06      .00     647.08      .40      1.18   1239.77  1699
```

```
ECNO     XLCH     ELTRD     ELLC     ELMIN      Q      CWSEL    CRIWS     EG     10K*S     VCH     AREA     .01K

.000    110.00     .00      .00     637.70   315.00   643.99     .00    644.00    .51      .92    342.65   441.91
.000    110.00     .00      .00     637.70   415.00   644.55     .00    644.57    .60     1.06    406.60   534.97
.000    110.00     .00      .00     637.70   480.00   644.79     .00    644.81    .68     1.15    443.97   582.44
.000    110.00     .00      .00     637.70   692.00   645.68     .00    645.71    .70     1.30    622.12   828.90
.000    110.00     .00      .00     637.70   886.00   646.40     .00    646.43    .64     1.35    829.58  1106.56
.000    110.00     .00      .00     637.70  1076.00   647.06     .00    647.09    .55     1.33   1084.96  1452.89

0.000   100.00     .00      .00     636.10   315.00   643.98     .00    644.02   1.24     1.42    222.54   282.78
0.000   100.00     .00      .00     636.10   415.00   644.54     .00    644.59   1.76     1.74    238.68   312.39
0.000   100.00     .00      .00     636.10   480.00   644.78     .00    644.84   2.18     1.95    245.63   325.35
0.000   100.00     .00      .00     636.10   692.00   645.66     .00    645.76   3.37     2.56    270.79   377.01
0.000   100.00     .00      .00     636.10   886.00   646.36     .00    646.50   4.34     3.04    291.08   425.26
0.000   100.00     .00      .00     636.10  1076.00   646.99     .00    647.18   5.21     3.48    309.57   471.23

0.000    40.00   648.50   645.40    636.10   315.00   643.98     .00    644.02   1.24     1.42    222.37   282.47
0.000    40.00   648.50   645.40    636.10   415.00   644.54     .00    644.59   1.77     1.74    238.53   312.11
0.000    40.00   648.50   645.40    636.10   480.00   644.78     .00    644.84   2.18     1.96    245.42   324.96
0.000    40.00   648.50   645.40    636.10   692.00   645.73     .00    645.83   3.29     2.54    272.84   381.79
0.000    40.00   648.50   645.40    636.10   886.00   646.50     .00    646.64   4.14     3.00    295.14   435.19
0.000    40.00   648.50   645.40    636.10  1076.00   647.23     .00    647.41   4.85     3.40    316.33   488.50

0.000    40.00     .00      .00     634.00   315.00   644.02     .00    644.03    .02      .26   1231.64  1993.51
0.000    40.00     .00      .00     634.00   415.00   644.60     .00    644.60    .03      .31   1325.65  2230.39
0.000    40.00     .00      .00     634.00   480.00   644.86     .00    644.86    .04      .35   1367.34  2336.02
0.000    40.00     .00      .00     634.00   692.00   645.85     .00    645.86    .06      .45   1541.25  2798.68
0.000    40.00     .00      .00     634.00   886.00   646.67     .00    646.68    .08      .53   1703.74  3217.10
0.000    40.00     .00      .00     634.00  1076.00   647.45     .00    647.46    .09      .59   1876.95  3655.11

0.000   300.00     .00      .00     635.10   315.00   644.02     .00    644.03    .04      .30   1057.97  1578.45
0.000   300.00     .00      .00     635.10   415.00   644.60     .00    644.61    .05      .36   1148.04  1789.91
0.000   300.00     .00      .00     635.10   480.00   644.86     .00    644.86    .06      .40   1188.65  1887.96
0.000   300.00     .00      .00     635.10   692.00   645.85     .00    645.86    .09      .51   1350.67  2294.30
0.000   300.00     .00      .00     635.10   886.00   646.67     .00    646.68    .11      .60   1490.05  2664.27
0.000   300.00     .00      .00     635.10  1076.00   647.46     .00    647.46    .12      .66   1638.77  3050.94

50.000  150.00     .00      .00     635.80   315.00   644.03     .00    644.03    .02      .23   1360.49  2018.60
50.000  150.00     .00      .00     635.80   415.00   644.60     .00    644.61    .03      .28   1479.73  2301.84
50.000  150.00     .00      .00     635.80   480.00   644.86     .00    644.86    .04      .31   1532.56  2430.84
50.000  150.00     .00      .00     635.80   692.00   645.86     .00    645.86    .05      .40   1742.79  2966.03
50.000  150.00     .00      .00     635.80   886.00   646.68     .00    646.68    .07      .46   1918.86  3439.59
50.000  150.00     .00      .00     635.80  1076.00   647.46     .00    647.46    .08      .51   2089.36  3918.60

15.000   65.00     .00      .00     638.10   315.00   644.01     .00    644.03   1.09     1.15    272.95   301.70
15.000   65.00     .00      .00     638.10   415.00   644.59     .00    644.61   1.29     1.34    310.03   306.07
15.000   65.00     .00      .00     638.10   480.00   644.84     .00    644.87   1.48     1.48    326.26   394.43
15.000   65.00     .00      .00     638.10   692.00   645.83     .00    645.87   1.75     1.76    397.43   522.46
15.000   65.00     .00      .00     638.10   886.00   646.64     .00    646.70   1.90     1.95    461.43   643.61
15.000   65.00     .00      .00     638.10  1076.00   647.42     .00    647.48   1.93     2.09    526.63   773.76
```

```
     SECNO       XLCH      ELTRD      ELLC      ELMIN        Q       CWSEL     CRIWS       EG       10K*S       VCH       AREA

*  36316.000     1.00       .00        .00     640.80    315.00    643.44    643.44    644.31    176.62      7.47      42.18
   36316.000     1.00       .00        .00     640.80    415.00    644.05       .00    644.84    119.07      7.13      58.22
   36316.000     1.00       .00        .00     640.80    480.00    644.24       .00    645.13    125.15      7.59      63.34
   36316.000     1.00       .00        .00     640.80    692.00    645.56       .00    645.99     72.06      5.35     131.83
   36316.000     1.00       .00        .00     640.80    886.00    646.47       .00    646.77     31.69      4.48     201.63
   36316.000     1.00       .00        .00     640.80   1076.00    647.29       .00    647.54     19.06      4.06     269.54

   36585.000   269.00       .00        .00     633.00    315.00    644.39       .00    644.39       .00       .12    2724.00
   36585.000   269.00       .00        .00     633.00    415.00    644.92       .00    644.92       .01       .14    2887.38
   36585.000   269.00       .00        .00     633.00    480.00    645.22       .00    645.22       .01       .16    2979.81
   36585.000   269.00       .00        .00     633.00    692.00    646.04       .00    646.04       .01       .21    3236.51
   36585.000   269.00       .00        .00     633.00    886.00    646.80       .00    646.80       .02       .25    3483.00
   36585.000   269.00       .00        .00     633.00   1076.00    647.56       .00    647.57       .02       .29    3740.14

   36895.000   310.00       .00        .00     639.20    315.00    644.39       .00    644.40       .24       .52     608.49
   36895.000   310.00       .00        .00     639.20    415.00    644.92       .00    644.92       .28       .61     695.09
   36895.000   310.00       .00        .00     639.20    480.00    645.22       .00    645.22       .30       .66     745.23
   36895.000   310.00       .00        .00     639.20    692.00    646.03       .00    646.04       .37       .80     888.03
   36895.000   310.00       .00        .00     639.20    886.00    646.80       .00    646.81       .39       .89    1029.58
   36895.000   310.00       .00        .00     639.20   1076.00    647.56       .00    647.57       .39       .94    1177.91

   37205.000   310.00       .00        .00     639.10    315.00    644.38       .00    644.43      3.60      1.73     181.59
   37205.000   310.00       .00        .00     639.10    415.00    644.90       .00    644.96      4.33      1.96     212.22
   37205.000   310.00       .00        .00     639.10    480.00    645.20       .00    645.26      4.71      2.08     231.27
   37205.000   310.00       .00        .00     639.10    692.00    646.00       .00    646.09      5.64      2.39     289.57
   37205.000   310.00       .00        .00     639.10    886.00    646.77       .00    646.87      5.64      2.51     352.86
   37205.000   310.00       .00        .00     639.10   1076.00    647.53       .00    647.63      5.24      2.54     423.47

   37245.000    40.00       .00        .00     639.10    315.00    644.40       .00    644.44      3.60      1.73     181.60
   37245.000    40.00       .00        .00     639.10    415.00    644.92       .00    644.98      4.30      1.95     212.80
   37245.000    40.00       .00        .00     639.10    480.00    645.22       .00    645.28      4.68      2.07     231.94
   37245.000    40.00       .00        .00     639.10    692.00    646.03       .00    646.11      5.58      2.38     290.93
   37245.000    40.00       .00        .00     639.10    886.00    646.79       .00    646.89      5.58      2.50     354.42
   37245.000    40.00       .00        .00     639.10   1076.00    647.55       .00    647.65      5.15      2.52     431.54

   37345.000   100.00       .00        .00     636.30    315.00    644.43       .00    644.47      1.43      1.52     207.54
   37345.000   100.00       .00        .00     636.30    415.00    644.96       .00    645.01      2.01      1.86     223.28
   37345.000   100.00       .00        .00     636.30    480.00    645.25       .00    645.32      2.41      2.07     231.93
   37345.000   100.00       .00        .00     636.30    692.00    646.06       .00    646.17      3.80      2.70     259.32
   37345.000   100.00       .00        .00     636.30    886.00    646.82       .00    646.96      4.54      3.06     323.68
   37345.000   100.00       .00        .00     636.30   1076.00    647.58       .00    647.71      4.38      3.09     427.97

   37385.000    40.00    645.80     645.50     636.30    315.00    644.43       .00    644.47      1.43      1.52     207.53
   37385.000    40.00    645.80     645.50     636.30    415.00    644.96       .00    645.01      2.02      1.86     223.05
   37385.000    40.00    645.80     645.50     636.30    480.00    645.25       .00    645.32      2.42      2.07     231.72
   37385.000    40.00    645.80     645.50     636.30    692.00    646.14       .00    646.25      3.69      2.67     264.31
   37385.000    40.00    645.80     645.50     636.30    886.00    646.93       .00    647.07      4.29      2.99     336.75
   37385.000    40.00    645.80     645.50     636.30   1076.00    647.69       .00    647.81      4.11      3.01     445.94
```

```
ECNO      XLCH      ELTRD      ELLC      ELMIN       Q       CWSEL     CRIWS      EG      10K*S      VCH      AREA      .01K

5.000      40.00      .00       .00     639.30    315.00    644.40      .00    644.52     8.94      2.73    115.38    105.37
5.000      40.00      .00       .00     639.30    415.00    644.92      .00    645.07     9.90      3.11    134.04    131.87
5.000      40.00      .00       .00     639.30    480.00    645.21      .00    645.39    10.31      3.33    146.14    149.49
5.000      40.00      .00       .00     639.30    692.00    646.13      .00    646.31     8.92      3.54    240.52    231.74
5.000      40.00      .00       .00     639.30    886.00    646.97      .00    647.09     5.54      3.10    385.74    376.41
5.000      40.00      .00       .00     639.30   1076.00    647.76      .00    647.84     3.46      2.66    561.09    578.71

5.000     270.00      .00       .00     639.60    315.00    644.65      .00    644.77     9.35      2.78    113.47    103.00
5.000     270.00      .00       .00     639.60    415.00    645.19      .00    645.35    10.18      3.13    132.86    130.09
5.000     270.00      .00       .00     639.60    480.00    645.49      .00    645.67    10.49      3.35    145.22    148.19
5.000     270.00      .00       .00     639.60    692.00    646.37      .00    646.56     9.53      3.63    231.69    224.18
5.000     270.00      .00       .00     639.60    886.00    647.12      .00    647.26     6.65      3.33    354.87    343.54
5.000     270.00      .00       .00     639.60   1076.00    647.85      .00    647.94     4.29      2.90    509.07    519.47

5.000     330.00      .00       .00     639.50    290.00    645.15      .00    645.25    28.22      2.57    112.91     54.59
25.000    330.00      .00       .00     639.50    365.00    645.74      .00    645.86    28.41      2.77    134.21     68.47
25.000    330.00      .00       .00     639.50    408.00    646.06      .00    646.18    26.87      2.79    152.75     78.71
25.000    330.00      .00       .00     639.50    493.00    646.88      .00    646.97    17.93      2.49    206.07    116.44
25.000    330.00      .00       .00     639.50    525.00    647.47      .00    647.54    12.12      2.16    244.78    150.79
25.000    330.00      .00       .00     639.50   1063.00    648.07      .00    648.28    30.83      3.61    285.05    191.45

25.000    300.00      .00       .00     640.70    290.00    645.90      .00    645.98    20.70      2.26    135.10     63.75
25.000    300.00      .00       .00     640.70    365.00    646.44      .00    646.50    16.63      2.17    181.56     89.59
25.000    300.00      .00       .00     640.70    408.00    646.71      .00    646.77    14.80      2.11    205.04    105.07
25.000    300.00      .00       .00     640.70    493.00    647.32      .00    647.38    10.54      1.90    259.61    151.86
25.000    300.00      .00       .00     640.70    525.00    647.77      .00    647.82     7.54      1.68    299.78    191.22
25.000    300.00      .00       .00     640.70   1063.00    648.75      .00    648.88    13.41      2.40    388.57    290.28

25.000    300.00      .00       .00     640.10    290.00    646.35      .00    646.40    10.10      1.82    172.83     91.23
25.000    300.00      .00       .00     640.10    365.00    646.82      .00    646.86     9.18      1.84    215.00    120.48
25.000    300.00      .00       .00     640.10    408.00    647.05      .00    647.10     8.72      1.85    236.50    133.18
25.000    300.00      .00       .00     640.10    493.00    647.59      .00    647.63     7.12      1.78    287.04    184.30
25.000    300.00      .00       .00     640.10    525.00    647.97      .00    648.01     5.46      1.62    326.09    224.74
25.000    300.00      .00       .00     640.10   1063.00    649.09      .00    649.17     7.97      2.18    466.92    376.46

35.000    310.00      .00       .00     641.10    290.00    646.69      .00    646.73    11.74      1.73    177.62     84.62
35.000    310.00      .00       .00     641.10    365.00    647.12      .00    647.16    10.43      1.72    216.51    113.02
35.000    310.00      .00       .00     641.10    408.00    647.33      .00    647.38     9.85      1.71    237.28    130.01
35.000    310.00      .00       .00     641.10    493.00    647.81      .00    647.86     8.13      1.64    285.24    172.87
35.000    310.00      .00       .00     641.10    525.00    648.14      .00    648.19     6.44      1.51    322.42    206.95
35.000    310.00      .00       .00     641.10   1063.00    649.33      .00    649.40     6.84      1.75    568.91    406.41

35.000    300.00      .00       .00     640.90    290.00    647.00      .00    647.04     9.20      1.64    184.95     95.60
35.000    300.00      .00       .00     640.90    365.00    647.42      .00    647.46     9.69      1.75    217.90    117.28
35.000    300.00      .00       .00     640.90    408.00    647.63      .00    647.67     9.71      1.78    237.36    130.94
35.000    300.00      .00       .00     640.90    493.00    648.07      .00    648.12     8.88      1.77    280.88    165.42
35.000    300.00      .00       .00     640.90    525.00    648.35      .00    648.40     7.58      1.68    309.77    190.70
35.000    300.00      .00       .00     640.90   1063.00    649.56      .00    649.64     9.37      2.10    491.95    347.24
```

```
     SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG       10K*S       VCH       AREA

   39565.000   330.00      .00        .00     641.60    290.00    647.21       .00     647.22      3.58        .98     300.85
   39565.000   330.00      .00        .00     641.60    365.00    647.64       .00     647.65      3.75       1.08     350.28
   39565.000   330.00      .00        .00     641.60    408.00    647.85       .00     647.87      3.81       1.12     378.11
   39565.000   330.00      .00        .00     641.60    493.00    648.28       .00     648.30      3.67       1.17     438.62
   39565.000   330.00      .00        .00     641.60    525.00    648.54       .00     648.56      3.26       1.14     479.68
   39565.000   330.00      .00        .00     641.60   1063.00    649.80       .00     649.83      3.75       1.41     791.96

   39595.000    30.00      .00        .00     641.60    290.00    647.22       .00     647.23      1.81        .98     302.26
   39595.000    30.00      .00        .00     641.60    365.00    647.64       .00     647.66      1.92       1.08     352.06
   39595.000    30.00      .00        .00     641.60    408.00    647.86       .00     647.87      1.97       1.13     380.04
   39595.000    30.00      .00        .00     641.60    493.00    648.29       .00     648.31      1.93       1.19     440.56
   39595.000    30.00      .00        .00     641.60    525.00    648.54       .00     648.56      1.73       1.16     482.63
   39595.000    30.00      .00        .00     641.60   1063.00    649.81       .00     649.84      2.17       1.51     793.08

   39695.000   100.00      .00        .00     640.50    290.00    647.18       .00     647.36     27.33       3.50      85.66
   39695.000   100.00      .00        .00     640.50    365.00    647.58       .00     647.82     32.76       4.04      93.76
   39695.000   100.00      .00        .00     640.50    408.00    647.78       .00     648.06     35.97       4.33      97.78
   39695.000   100.00      .00        .00     640.50    493.00    648.25       .00     648.44     26.24       3.91     178.79
   39695.000   100.00      .00        .00     640.50    525.00    648.54       .00     648.64     15.35       3.08     247.46
   39695.000   100.00      .00        .00     640.50   1063.00    649.83       .00     649.88      5.42       2.07     609.58

   39700.000     5.00    647.80     649.00    640.50    290.00    646.92       .00     647.66     55.25       6.93      41.85
*  39700.000     5.00    647.80     649.00    640.50    365.00    648.37    648.37     648.62     29.65       5.08     137.26
*  39700.000     5.00    647.80     649.00    640.50    408.00    648.43    648.43     648.67     31.06       5.20     149.84
*  39700.000     5.00    647.80     649.00    640.50    493.00    648.53    648.53     648.77     33.18       5.37     172.76
*  39700.000     5.00    647.80     649.00    640.50    525.00    648.56    648.56     648.81     34.73       5.49     178.84
   39700.000     5.00    647.80     649.00    640.50   1063.00    649.83       .00     649.90      7.70       2.55     524.20

   39730.000    30.00    647.80     649.00    640.50    290.00    647.08       .00     647.83     55.25       6.93      41.85
   39730.000    30.00    647.80     649.00    640.50    365.00    648.63       .00     648.72     13.89       3.47     193.59
   39730.000    30.00    647.80     649.00    640.50    408.00    648.68       .00     648.78     15.42       3.66     203.10
   39730.000    30.00    647.80     649.00    640.50    493.00    648.77       .00     648.88     17.23       3.87     226.62
   39730.000    30.00    647.80     649.00    640.50    525.00    648.80       .00     648.92     17.75       3.93     235.99
   39730.000    30.00    647.80     649.00    640.50   1063.00    649.85       .00     649.92      7.46       2.52     529.52

   39735.000     5.00      .00        .00     640.40    290.00    647.97       .00     648.04      7.55       2.12     156.64
   39735.000     5.00      .00        .00     640.40    365.00    648.72       .00     648.75      3.41       1.46     331.55
   39735.000     5.00      .00        .00     640.40    408.00    648.78       .00     648.81      3.86       1.56     345.27
   39735.000     5.00      .00        .00     640.40    493.00    648.88       .00     648.91      4.75       1.74     369.15
   39735.000     5.00      .00        .00     640.40    525.00    648.91       .00     648.95      5.25       1.76     378.00
   39735.000     5.00      .00        .00     640.40   1063.00    649.88       .00     649.93      4.80       1.84     618.63

   39775.000    40.00      .00        .00     640.20    290.00    648.02       .00     648.07      5.22       1.78     213.57
   39775.000    40.00      .00        .00     640.20    365.00    648.74       .00     648.76      2.37       1.19     387.51
   39775.000    40.00      .00        .00     640.20    408.00    648.80       .00     648.82      2.67       1.26     402.18
   39775.000    40.00      .00        .00     640.20    493.00    648.90       .00     648.93      3.26       1.41     427.44
   39775.000    40.00      .00        .00     640.20    525.00    648.94       .00     648.96      3.46       1.46     437.01
   39775.000    40.00      .00        .00     640.20   1063.00    649.91       .00     649.95      3.63       1.63     674.33
```

```
ECNO      XLCH     ELTRD     ELLC     ELMIN       Q       CWSEL     CRIWS      EG     10K*S     VCH     AREA    .01K

5.000     90.00     .00       .00    641.00    290.00    648.07      .00    648.09     1.78    1.13   258.84   217.63
5.000     90.00     .00       .00    641.00    365.00    648.76      .00    648.78     1.77    1.23   312.50   274.16
5.000     90.00     .00       .00    641.00    408.00    648.82      .00    648.84     2.12    1.35   319.66   280.32
5.000     90.00     .00       .00    641.00    493.00    648.92      .00    648.96     2.85    1.59   333.38   291.81
5.000     90.00     .00       .00    641.00    525.00    648.96      .00    649.00     3.16    1.68   337.41   295.11
5.000     90.00     .00       .00    641.00   1063.00    649.92      .00    649.99     5.01    2.33   563.07   475.07

5.000    320.00     .00       .00    641.80    290.00    648.14      .00    648.17     3.18    1.47   212.50   162.64
5.000    320.00     .00       .00    641.80    365.00    648.82      .00    648.85     2.62    1.45   295.21   225.29
5.000    320.00     .00       .00    641.80    408.00    648.89      .00    648.93     3.04    1.58   309.21   234.09
5.000    320.00     .00       .00    641.80    493.00    649.02      .00    649.06     3.83    1.80   339.77   251.93
5.000    320.00     .00       .00    641.80    525.00    649.07      .00    649.12     4.09    1.87   353.83   259.50
5.000    320.00     .00       .00    641.80   1063.00    650.09      .00    650.14     4.03    2.07   694.68   529.23

5.000    210.00     .00       .00    641.80    290.00    648.22      .00    648.25     4.24    1.45   202.06   140.77
5.000    210.00     .00       .00    641.80    365.00    648.88      .00    648.92     3.82    1.52   249.13   186.67
5.000    210.00     .00       .00    641.80    408.00    648.96      .00    649.01     4.45    1.66   256.54   193.35
5.000    210.00     .00       .00    641.80    493.00    649.11      .00    649.17     5.72    1.92   271.55   206.20
5.000    210.00     .00       .00    641.80    525.00    649.17      .00    649.23     6.17    2.01   278.03   211.32
5.000    210.00     .00       .00    641.80   1063.00    650.18      .00    650.27     8.14    2.64   483.81   372.59

5.000    130.00     .00       .00    643.10    290.00    648.27      .00    648.32     5.95    1.68   183.44   118.93
5.000    130.00     .00       .00    643.10    365.00    648.94      .00    648.97     4.16    1.53   283.29   179.04
5.000    130.00     .00       .00    643.10    408.00    649.03      .00    649.06     4.58    1.62   302.26   190.73
5.000    130.00     .00       .00    643.10    493.00    649.20      .00    649.23     5.16    1.76   347.13   216.98
5.000    130.00     .00       .00    643.10    525.00    649.26      .00    649.30     5.32    1.80   365.35   227.66
5.000    130.00     .00       .00    643.10   1063.00    650.31      .00    650.34     3.54    1.65   904.88   565.29

5.000    210.00     .00       .00    642.10    290.00    648.42      .00    648.45     7.15    1.53   188.63   108.49
5.000    210.00     .00       .00    642.10    365.00    649.04      .00    649.08     6.91    1.59   222.70   138.31
5.000    210.00     .00       .00    642.10    408.00    649.14      .00    649.19     7.98    1.73   228.93   144.44
5.000    210.00     .00       .00    642.10    493.00    649.32      .00    649.39    10.10    1.97   240.94   155.13
5.000    210.00     .00       .00    642.10    525.00    649.39      .00    649.46    10.88    2.06   245.54   159.20
5.000    210.00     .00       .00    642.10   1063.00    650.35      .00    650.53    21.73    3.14   315.33   228.05

35.000   200.00     .00       .00    642.60    290.00    648.57      .00    648.62     9.70    1.76   165.32    93.10
35.000   200.00     .00       .00    642.60    365.00    649.19      .00    649.25     9.57    1.85   194.42   118.01
35.000   200.00     .00       .00    642.60    408.00    649.32      .00    649.38    10.91    2.00   200.59   123.52
35.000   200.00     .00       .00    642.60    493.00    649.54      .00    649.63    13.53    2.27   212.12   134.04
35.000   200.00     .00       .00    642.60    525.00    649.63      .00    649.72    14.45    2.36   216.40   138.10
35.000   200.00     .00       .00    642.60   1063.00    650.79      .00    650.97    21.62    3.29   339.59   228.63

35.000   200.00     .00       .00    642.70    290.00    648.78      .00    648.81     8.78    1.44   201.75    97.85
35.000   200.00     .00       .00    642.70    365.00    649.40      .00    649.43     8.99    1.54   237.70   121.74
35.000   200.00     .00       .00    642.70    408.00    649.55      .00    649.59    10.13    1.65   247.05   128.17
35.000   200.00     .00       .00    642.70    493.00    649.83      .00    649.89    12.22    1.86   264.95   141.03
35.000   200.00     .00       .00    642.70    525.00    649.94      .00    649.99    12.92    1.93   271.88   146.08
35.000   200.00     .00       .00    642.70   1063.00    651.25      .00    651.33    14.49    2.31   495.15   279.29
```

```
   SECNO      XLCH     ELTRD     ELLC     ELMIN       Q      CWSEL     CRIWS      EG      10K*S      VCH      AREA     .

 41330.000   195.00      .00      .00    642.80    381.00   648.83      .00    649.02     8.22     1.37    141.41   13
 41330.000   195.00      .00      .00    642.80    513.00   649.43      .00    649.69    10.17     1.60    163.24   16
 41330.000   195.00      .00      .00    642.80    585.00   649.58      .00    649.89    12.09     1.76    168.90   16
 41330.000   195.00      .00      .00    642.80    711.00   649.85      .00    650.27    15.18     2.01    179.61   18
 41330.000   195.00      .00      .00    642.80    759.00   649.95      .00    650.40    16.37     2.10    183.45   18
 41330.000   195.00      .00      .00    642.80   1135.00   651.44      .00    651.52     7.18     1.50    511.47   42

 41530.000   200.00      .00      .00    642.60    381.00   649.14      .00    649.16     4.82     1.21    304.82   17
 41530.000   200.00      .00      .00    642.60    513.00   649.81      .00    649.84     4.20     1.22    382.09   25
 41530.000   200.00      .00      .00    642.60    585.00   650.03      .00    650.06     4.42     1.28    407.80   27
 41530.000   200.00      .00      .00    642.60    711.00   650.42      .00    650.46     4.59     1.35    454.49   33
 41530.000   200.00      .00      .00    642.60    759.00   650.56      .00    650.60     4.63     1.38    471.68   35
 41530.000   200.00      .00      .00    642.60   1135.00   651.58      .00    651.61     2.41     1.09    915.56   73

 41710.000   180.00      .00      .00    643.50    381.00   649.19      .00    649.19     1.08      .59    602.68   36
 41710.000   180.00      .00      .00    643.50    513.00   649.86      .00    649.86      .78      .55    821.31   58
 41710.000   180.00      .00      .00    643.50    585.00   650.08      .00    650.09      .77      .56    897.24   66
 41710.000   180.00      .00      .00    643.50    711.00   650.48      .00    650.48      .73      .57   1034.41   83
 41710.000   180.00      .00      .00    643.50    759.00   650.62      .00    650.63      .71      .57   1084.83   90
 41710.000   180.00      .00      .00    643.50   1135.00   651.62      .00    651.63      .64      .60   1444.76  142

 41790.000    80.00      .00      .00    643.60    381.00   649.19      .00    649.20     1.23      .62    576.31   34
 41790.000    80.00      .00      .00    643.60    513.00   649.86      .00    649.87      .87      .57    791.86   54
 41790.000    80.00      .00      .00    643.60    585.00   650.08      .00    650.09      .86      .58    867.45   63
 41790.000    80.00      .00      .00    643.60    711.00   650.48      .00    650.49      .80      .59   1004.08   79
 41790.000    80.00      .00      .00    643.60    759.00   650.62      .00    650.63      .78      .59   1054.28   86
 41790.000    80.00      .00      .00    643.60   1135.00   651.62      .00    651.63      .69      .62   1412.37  137

 41890.000   100.00      .00      .00    643.90    381.00   649.13      .00    649.33    32.91     3.58    106.56    6
 41890.000   100.00      .00      .00    643.90    513.00   649.75      .00    650.03    41.07     4.30    119.20    3
 41890.000   100.00      .00      .00    643.90    585.00   650.02      .00    650.20    22.75     3.30    173.25   12
 41890.000   100.00      .00      .00    643.90    711.00   650.39      .00    650.62    26.35     3.70    187.62   13
 41890.000   100.00      .00      .00    643.90    759.00   650.53      .00    650.77    27.58     3.84    192.93   1
 41890.000   100.00      .00      .00    643.90   1135.00   651.63      .00    651.65     6.29     2.03    963.86   45

 41895.000     5.00   650.80   651.00    643.90    381.00   649.09      .00    649.38     7.87     4.35     87.64   13
 41895.000     5.00   650.80   651.00    643.90    513.00   649.65      .00    650.16    16.42     5.72     89.68   12
 41895.000     5.00   650.80   651.00    643.90    585.00   649.79      .00    650.45    21.35     6.52     89.68   12
 41895.000     5.00   650.80   651.00    643.90    711.00   650.03      .00    651.01    31.54     7.93     89.68   12
 41895.000     5.00   650.80   651.00    643.90    759.00   650.11   647.38    651.22    35.94     8.46     89.68   12
 41895.000     5.00   650.80   651.00    643.90   1135.00   651.60      .00    651.69     9.28     3.66    818.75   37

 41925.000    30.00   650.80   651.00    643.90    381.00   649.12      .00    649.41     7.86     4.34     87.83   13
 41925.000    30.00   650.80   651.00    643.90    513.00   649.70      .00    650.21    16.42     5.72     89.68   12
 41925.000    30.00   650.80   651.00    643.90    585.00   649.86      .00    650.52    21.35     6.52     89.68   12
 41925.000    30.00   650.80   651.00    643.90    711.00   650.13      .00    651.10    31.54     7.93     89.68   12
 41925.000    30.00   650.80   651.00    643.90    759.00   650.22   647.38    651.33    35.94     8.46     89.68   12
 41925.000    30.00   650.80   651.00    643.90   1135.00   651.64      .00    651.72     8.42     3.69    850.13  391
```

```
ECNO      XLCH     ELTRD     ELLC     ELMIN      Q       CWSEL     CRIWS      EG      10K*S      VCH      AREA      .01K

0.000      5.00      .00      .00    643.90    381.00    649.26      .00    649.45    30.39     3.49    109.14     69.11
0.000      5.00      .00      .00    643.90    513.00    650.03      .00    650.29    35.00     4.10    125.05     86.71
0.000      5.00      .00      .00    643.90    585.00    650.33      .00    650.64    38.80     4.46    131.19     93.92
0.000      5.00      .00      .00    643.90    711.00    651.37      .00    651.39     5.33     1.83    694.46    307.96
0.000      5.00      .00      .00    643.90    759.00    651.65      .00    651.66     2.65     1.32    986.34    466.37
0.000      5.00      .00      .00    643.90   1135.00    651.72      .00    651.74     4.90     1.81   1059.76    512.96

60.000    30.00      .00      .00    643.90    381.00    649.43      .00    649.49     6.48     1.39    213.74    149.73
60.000    30.00      .00      .00    643.90    513.00    650.28      .00    650.34     4.69     1.33    299.39    236.89
60.000    30.00      .00      .00    643.90    585.00    650.63      .00    650.69     4.40     1.34    334.17    278.75
60.000    30.00      .00      .00    643.90    711.00    651.36      .00    651.42     3.56     1.30    406.93    376.94
60.000    30.00      .00      .00    643.90    759.00    651.63      .00    651.68     3.32     1.29    433.86    416.67
60.000    30.00      .00      .00    643.90   1135.00    651.67      .00    651.79     7.22     1.92    437.60    422.32

55.000   195.00      .00      .00    644.20    381.00    649.57      .00    649.58     3.00      .92    400.34    220.02
55.000   195.00      .00      .00    644.20    513.00    650.38      .00    650.40     1.61      .76    580.15    404.44
55.000   195.00      .00      .00    644.20    585.00    650.73      .00    650.74     1.39      .74    655.63    495.93
55.000   195.00      .00      .00    644.20    711.00    651.44      .00    651.45     1.00      .68    813.71    711.87
55.000   195.00      .00      .00    644.20    759.00    651.71      .00    651.72      .90      .66    871.32    798.27
55.000   195.00      .00      .00    644.20   1135.00    651.84      .00    651.86     1.82      .95    899.72    842.30

20.000   265.00      .00      .00    644.50    381.00    649.65      .00    649.67     3.39      .95    376.42    207.06
20.000   265.00      .00      .00    644.50    513.00    650.43      .00    650.44     1.97      .82    530.27    365.30
20.000   265.00      .00      .00    644.50    585.00    650.77      .00    650.78     1.71      .80    598.96    446.74
20.000   265.00      .00      .00    644.50    711.00    651.47      .00    651.48     1.23      .73    748.94    641.26
20.000   265.00      .00      .00    644.50    759.00    651.73      .00    651.75     1.10      .71    807.40    722.70
20.000   265.00      .00      .00    644.50   1135.00    651.89      .00    651.92     2.16     1.02    842.13    772.45

725.000  305.00      .00      .00    643.70    381.00    649.82      .00    649.90    19.21     2.30    171.08     86.93
725.000  305.00      .00      .00    643.70    513.00    650.53      .00    650.61    16.37     2.30    217.10    126.80
725.000  305.00      .00      .00    643.70    585.00    650.84      .00    650.94    15.53     2.33    239.99    148.44
725.000  305.00      .00      .00    643.70    711.00    651.51      .00    651.61    12.44   . 2.26    292.97    201.63
725.000  305.00      .00      .00    643.70    759.00    651.77      .00    651.87    11.44     2.22    313.30    224.45
725.000  305.00      .00      .00    643.70   1135.00    651.95      .00    652.15    22.05     3.15    327.98    241.71

845.000  120.00      .00      .00    644.80    381.00    650.16      .00    650.48   110.31     4.53     84.05     36.28
845.000  120.00      .00      .00    644.80    513.00    650.77      .00    651.22   131.04     5.38     95.42     44.81
845.000  120.00      .00      .00    644.80    585.00    651.05      .00    651.58   143.05     5.82    100.56     48.91
845.000  120.00      .00      .00    644.80    711.00    651.60      .00    652.24   153.38     6.42    110.71     57.41
845.000  120.00      .00      .00    644.80    759.00    651.82      .00    652.50   154.74     6.61    114.83     61.02
845.000  120.00      .00      .00    644.80   1135.00    652.00      .00    653.43   314.13     9.60    118.21     64.04

855.000   10.00    667.00   668.75   644.80    381.00    650.18      .00    650.50  -  5.75     4.54     83.95    158.64
855.000   10.00    667.00   668.75   644.80    513.00    650.79      .00    651.24     7.31     5.41     94.87    189.74
855.000   10.00    667.00   668.75   644.80    585.00    651.07      .00    651.60     8.24     5.86     99.75    203.85
855.000   10.00    667.00   668.75   644.80    711.00    651.62      .00    652.28     9.37     6.50    109.39    232.25
855.000   10.00    667.00   668.75   644.80    759.00    651.83      .00    652.53     9.76     6.72    112.97    242.96
855.000   10.00    667.00   668.75   644.80   1135.00    652.03      .00    653.51    20.15     9.76    116.25    252.32
```

```
1
 09-06-88     11:52:03                                                                                                   PAGE  100


     SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL     CRIWS       EG       10K*S       VCH       AREA      .

   43045.000   190.00    667.00    668.75    644.80    381.00    650.30       .00    650.61      5.31      4.42      86.25   16
   43045.000   190.00    667.00    668.75    644.80    513.00    650.96       .00    651.39      6.67      5.24      97.94   19
   43045.000   190.00    667.00    668.75    644.80    585.00    651.26       .00    651.76      7.47      5.67     103.25   21
   43045.000   190.00    667.00    668.75    644.80    711.00    651.85       .00    652.46      8.50      6.28     113.26   24
   43045.000   190.00    667.00    668.75    644.80    759.00    652.07       .00    652.72      8.85      6.49     117.00   25
   43045.000   190.00    667.00    668.75    644.80   1135.00    652.68       .00    653.92     15.88      8.94     126.97   28

   43055.000    10.00       .00       .00    643.80    381.00    650.43       .00    650.65     59.38      3.75     101.62    4
   43055.000    10.00       .00       .00    643.80    513.00    651.14       .00    651.44     82.55      4.39     116.86    5
   43055.000    10.00       .00       .00    643.80    585.00    651.48       .00    651.83     89.81      4.71     124.28    6
   43055.000    10.00       .00       .00    643.80    711.00    652.13       .00    652.54     97.24      5.14     138.44    7
   43055.000    10.00       .00       .00    643.80    759.00    652.38       .00    652.81     99.31      5.28     143.85    7
   43055.000    10.00       .00       .00    643.80   1135.00    653.38       .00    654.11    148.69      6.85     165.74    9

   43155.000   100.00       .00       .00    643.80    381.00    651.01       .00    651.19     48.82      3.34     114.10    5
   43155.000   100.00       .00       .00    643.80    513.00    651.89       .00    652.12     56.53      3.85     133.21    6
   43155.000   100.00       .00       .00    643.80    585.00    652.30       .00    652.57     61.00      4.11     142.18    7
   43155.000   100.00       .00       .00    643.80    711.00    653.03       .00    653.35     66.58      4.50     158.16    8
   43155.000   100.00       .00       .00    643.80    759.00    653.30       .00    653.64     68.34      4.62     164.13    9
   43155.000   100.00       .00       .00    643.80   1135.00    654.77       .00    655.28     92.60      5.78     196.46   11

   43305.000   150.00       .00       .00    645.20    381.00    651.51       .00    651.57     14.66      1.89     201.40    9
   43305.000   150.00       .00       .00    645.20    513.00    652.44       .00    652.51     13.68      2.04     252.05   13
   43305.000   150.00       .00       .00    645.20    585.00    652.89       .00    652.96     13.45      2.11     277.32   15
   43305.000   150.00       .00       .00    645.20    711.00    653.67       .00    653.74     12.76      2.20     322.85   19
   43305.000   150.00       .00       .00    645.20    759.00    653.95       .00    654.03     12.49      2.23     340.24   21
   43305.000   150.00       .00       .00    645.20   1135.00    655.52       .00    655.56      5.92      1.75     718.06   46

   43675.000   370.00       .00       .00    646.20    381.00    651.80       .00    651.82      3.71       .92     369.61   19
   43675.000   370.00       .00       .00    646.20    513.00    652.65       .00    652.67      1.92       .74     557.04   37
   43675.000   370.00       .00       .00    646.20    585.00    653.08       .00    653.09      1.50       .69     652.37   47
   43675.000   370.00       .00       .00    646.20    711.00    653.83       .00    653.84      1.01       .63     857.30   70
   43675.000   370.00       .00       .00    646.20    759.00    654.11       .00    654.12       .88       .60     949.41   81
   43675.000   370.00       .00       .00    646.20   1135.00    655.60       .00    655.61       .55       .56    1483.75  155

   44015.000   340.00       .00       .00    645.20    322.00    651.98       .00    652.02     10.25      1.55     208.37   10
   44015.000   340.00       .00       .00    645.20    406.00    652.75       .00    652.79      9.03      1.59     258.13   13
   44015.000   340.00       .00       .00    645.20    450.00    653.15       .00    653.19      8.12      1.58     292.59   15
   44015.000   340.00       .00       .00    645.20    527.00    653.88       .00    653.91      5.69      1.42     394.50   22
   44015.000   340.00       .00       .00    645.20    684.00    654.15       .00    654.19      7.30      1.65     439.33   25
   44015.000   340.00       .00       .00    645.20   1041.00    655.63       .00    655.66      3.86      1.36     761.88   52

   44335.000   320.00       .00       .00    646.80    322.00    652.25       .00    652.30      7.56      1.53     196.63   11
   44335.000   320.00       .00       .00    646.80    406.00    652.98       .00    653.03      6.24      1.54     245.18   16
   44335.000   320.00       .00       .00    646.80    450.00    653.36       .00    653.41      5.58      1.53     272.31   19
   44335.000   320.00       .00       .00    646.80    527.00    654.03       .00    654.07      4.56      1.49     322.89   24
   44335.000   320.00       .00       .00    646.80    684.00    654.35       .00    654.41      6.04      1.77     350.51   27
   44335.000   320.00       .00       .00    646.80   1041.00    655.75       .00    655.80      4.64      1.77     568.67   48
```

```
SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS      EG       10K*S      VCH       AREA      .01K

30.000    195.00       .00       .00     646.80    322.00    652.40       .00     652.44      6.62      1.46    205.62    125.13
30.000    195.00       .00       .00     646.80    406.00    653.10       .00     653.15      5.63      1.48    253.61    171.09
30.000    195.00       .00       .00     646.80    450.00    653.47       .00     653.51      5.12      1.48    280.22    198.94
30.000    195.00       .00       .00     646.80    527.00    654.12       .00     654.16      4.25      1.45    330.60    255.75
30.000    195.00       .00       .00     646.80    684.00    654.46       .00     654.52      5.51      1.71    362.61    291.48
30.000    195.00       .00       .00     646.80   1041.00    655.84       .00     655.89      4.32      1.72    587.42    500.59

30.000    100.00       .00       .00     646.90    322.00    652.48       .00     652.58     24.26      2.63    122.52     65.37
30.000    100.00       .00       .00     646.90    406.00    653.16       .00     653.29     25.23      2.89    140.41     80.83
30.000    100.00       .00       .00     646.90    450.00    653.52       .00     653.66     25.37      3.00    149.80     89.35
30.000    100.00       .00       .00     646.90    527.00    654.15       .00     654.30     25.24      3.17    166.26    104.90
30.000    100.00       .00       .00     646.90    684.00    654.49       .00     654.73     36.31      3.91    175.04    113.50
30.000    100.00       .00       .00     646.90   1041.00    655.77       .00     656.16     48.34      4.99    208.73    149.73

30.000    200.00    658.50    655.00     642.60    322.00    652.49       .00     652.58      8.85      1.30    178.62    108.24
30.000    200.00    658.50    655.00     642.60    406.00    653.18       .00     653.29     11.49      2.11    192.60    119.77
30.000    200.00    658.50    655.00     642.60    450.00    653.54       .00     653.66     12.79      2.25    199.84    125.81
30.000    200.00    658.50    655.00     642.60    527.00    654.17       .00     654.30     14.89      2.48    212.61    136.58
30.000    200.00    658.50    655.00     642.60    684.00    654.53       .00     654.73     22.95      3.11    219.88    142.77
30.000    200.00    658.50    655.00     642.60   1041.00    656.05       .00     656.32     37.72      4.15    250.80    169.49

70.000     40.00       .00       .00     643.90    322.00    652.56       .00     652.63      9.80      2.10    153.62    102.84
70.000     40.00       .00       .00     643.90    406.00    653.26       .00     653.35     12.25      2.42    167.74    115.98
70.000     40.00       .00       .00     643.90    450.00    653.62       .00     653.72     13.41      2.57    175.04    122.37
70.000     40.00       .00       .00     643.90    527.00    654.25       .00     654.38     15.20      2.80    187.89    135.17
70.000     40.00       .00       .00     643.90    684.00    654.65       .00     654.84     22.89      3.49    195.93    142.96
70.000     40.00       .00       .00     643.90   1041.00    656.17       .00     656.50     36.01      4.59    226.81    173.48

910.000    40.00       .00       .00     647.00    322.00    652.59       .00     652.73     34.16      3.03    106.27     55.09
910.000    40.00       .00       .00     647.00    406.00    653.30       .00     653.47     32.59      3.28    123.86     71.12
910.000    40.00       .00       .00     647.00    450.00    653.66       .00     653.84     31.61      3.38    132.97     80.04
910.000    40.00       .00       .00     647.00    527.00    654.30       .00     654.49     29.69      3.54    148.96     96.72
910.000    40.00       .00       .00     647.00    684.00    654.72       .00     655.01     40.02      4.29    159.26    108.12
910.000    40.00       .00       .00     647.00   1041.00    656.59       .00     656.61      1.75      1.07    895.75    786.19

915.000     5.00    657.50    660.50     647.00    322.00    652.54       .00     652.80      8.03      4.02     82.78    113.63
915.000     5.00    657.50    660.50     647.00    406.00    653.20       .00     653.58     14.72      4.91     86.95    105.82
915.000     5.00    657.50    660.50     647.00    450.00    653.53       .00     653.99     18.08      5.45     87.88    105.82
915.000     5.00    657.50    660.50     647.00    527.00    654.10    650.64     654.73     24.80      6.38     89.70    105.83
915.000     5.00    657.50    660.50     647.00    684.00    654.35    651.21     655.41     41.77      8.28     90.62    105.83
915.000     5.00    657.50    660.50     647.00   1041.00    655.54    652.11     657.65     87.24     11.96    128.36    111.45

955.000    40.00    657.50    660.50     647.00    322.00    652.58       .00     652.83      8.02      4.01     83.16    113.71
955.000    40.00    657.50    660.50     647.00    406.00    653.26       .00     653.64     14.72      4.91     87.11    105.82
955.000    40.00    657.50    660.50     647.00    450.00    653.60       .00     654.07     18.08      5.45     88.10    105.82
955.000    40.00    657.50    660.50     647.00    527.00    654.19    650.64     654.83     24.80      6.38     90.08    105.83
955.000    40.00    657.50    660.50     647.00    684.00    654.56    651.21     655.59     40.97      8.20     91.72    106.86
955.000    40.00    657.50    660.50     647.00   1041.00    655.89    652.11     658.00     87.24     11.96    128.36    111.45
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS      EG       10K*S      VCH      AREA    .

  44960.000     5.00       .00       .00     646.60    322.00     652.85       .00     652.89     10.82      1.70    189.84    9
  44960.000     5.00       .00       .00     646.60    406.00     653.69       .00     653.74     10.15      1.76    230.33   12
  44960.000     5.00       .00       .00     646.60    450.00     654.15       .00     654.19      9.14      1.78    252.90   14
  44960.000     5.00       .00       .00     646.60    527.00     654.96       .00     655.01      7.63      1.80    293.49   19
  44960.000     5.00       .00       .00     646.60    684.00     655.82       .00     655.89      8.10      2.03    337.05   24
  44960.000     5.00       .00       .00     646.60   1041.00     658.63       .00     658.64       .06       .22   3457.04  429

  45025.000    65.00       .00       .00     648.00    322.00     652.91       .00     652.95      7.28      1.45    216.88   11
  45025.000    65.00       .00       .00     648.00    406.00     653.75       .00     653.78      4.42      1.27    325.55   19
  45025.000    65.00       .00       .00     648.00    450.00     654.21       .00     654.23      2.98      1.10    423.47   26
  45025.000    65.00       .00       .00     648.00    527.00     655.02       .00     655.03      1.29       .80    643.03   46
  45025.000    65.00       .00       .00     648.00    684.00     655.90       .00     655.91       .75       .66    914.64   78
  45025.000    65.00       .00       .00     648.00   1041.00     658.63       .00     658.64       .19       .41   1873.64  241

  45345.000   320.00       .00       .00     647.80    322.00     653.21       .00     653.26     13.54      1.94    178.38    6
  45345.000   320.00       .00       .00     647.80    406.00     653.93       .00     653.96      7.35      1.59    265.74   14
  45345.000   320.00       .00       .00     647.80    450.00     654.32       .00     654.35      5.19      1.41    323.09   19
  45345.000   320.00       .00       .00     647.80    527.00     655.07       .00     655.09      2.77      1.13    449.47   31
  45345.000   320.00       .00       .00     647.80    684.00     655.93       .00     655.94      1.77       .98    622.06   51
  45345.000   320.00       .00       .00     647.80   1041.00     658.64       .00     658.65       .44       .61   1313.66  156

  45650.000   305.00       .00       .00     648.40    322.00     653.48       .00     653.50      4.81      1.18    262.27   14
  45650.000   305.00       .00       .00     648.40    406.00     654.09       .00     654.11      3.20      1.05    346.34   22
  45650.000   305.00       .00       .00     648.40    450.00     654.44       .00     654.46      2.52       .98    404.42   28
  45650.000   305.00       .00       .00     648.40    527.00     655.14       .00     655.15      1.53       .83    556.86   42
  45650.000   305.00       .00       .00     648.40    684.00     655.97       .00     655.98       .94       .71    827.00   70
  45650.000   305.00       .00       .00     648.40   1041.00     658.65       .00     658.66       .20       .41   1826.08  232

  45750.000   100.00       .00       .00     647.40    322.00     653.51       .00     653.70     62.78      3.47     92.78    4
  45750.000   100.00       .00       .00     647.40    406.00     654.07       .00     654.29     64.66      3.75    108.19    5
  45750.000   100.00       .00       .00     647.40    450.00     654.43       .00     654.61     52.07      3.52    143.50    6
  45750.000   100.00       .00       .00     647.40    527.00     655.15       .00     655.22     17.03      2.24    252.62   12
  45750.000   100.00       .00       .00     647.40    684.00     655.98       .00     656.02      6.74      1.57    414.46   26
  45750.000   100.00       .00       .00     647.40   1041.00     658.65       .00     658.67       .74       .67   1147.12  120

  45755.000     5.00    651.00    662.00     647.40    322.00     653.42       .00     653.82     13.55      5.12     62.88    8
  45755.000     5.00    651.00    662.00     647.40    406.00     653.99       .00     654.40     11.03      5.18     78.40   12
  45755.000     5.00    651.00    662.00     647.40    450.00     654.34    653.09     654.72      9.17      5.03    102.94   14
  45755.000     5.00    651.00    662.00     647.40    527.00     655.08       .00     655.28      4.22      3.93    214.41   25
  45755.000     5.00    651.00    662.00     647.40    684.00     655.94       .00     656.06      2.28      3.31    377.43   45
  45755.000     5.00    651.00    662.00     647.40   1041.00     658.65       .00     658.67       .40      1.88   1118.57  165

  45757.000     2.00    651.00    662.00     647.40    322.00     653.42       .00     653.83     13.44      5.11     63.06    8
  45757.000     2.00    651.00    662.00     647.40    406.00     653.99       .00     654.41     10.95      5.17     78.60   12
  45757.000     2.00    651.00    662.00     647.40    450.00     654.34    653.09     654.73      9.09      5.02    103.78   14
  45757.000     2.00    651.00    662.00     647.40    527.00     655.09       .00     655.29      4.21      3.93    214.72   25
  45757.000     2.00    651.00    662.00     647.40    684.00     655.94       .00     656.06      2.28      3.31    377.63   45
  45757.000     2.00    651.00    662.00     647.40   1041.00     658.65       .00     658.67       .40      1.88   1116.64  1650
```

```
ECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG       10K*S      VCH      AREA      .01K

0.000     3.00       .00        .00     647.40    322.00    653.74       .00     653.91     52.20      3.25      99.03     44.57
0.000     3.00       .00        .00     647.40    406.00    654.29       .00     654.48     53.63      3.50     123.14     55.44
0.000     3.00       .00        .00     647.40    450.00    654.71       .00     654.81     30.39      2.80     182.98     31.62
0.000     3.00       .00        .00     647.40    527.00    655.27       .00     655.33     13.59      2.03     272.43    142.94
0.000     3.00       .00        .00     647.40    684.00    656.04       .00     656.08      6.18      1.51     426.59    275.08
0.000     3.00       .00        .00     647.40   1041.00    658.66       .00     658.68       .74       .67    1146.57   1206.82

5.000    25.00       .00        .00     647.40    322.00    653.88       .00     654.03     46.99      3.13     102.78     46.97
5.000    25.00       .00        .00     647.40    406.00    654.48       .00     654.61     38.90      3.06     150.13     65.09
5.000    25.00       .00        .00     647.40    450.00    654.80       .00     654.89     24.99      2.58     197.32     90.02
5.000    25.00       .00        .00     647.40    527.00    655.31       .00     655.36     12.95      1.99     276.82    146.44
5.000    25.00       .00        .00     647.40    684.00    656.06       .00     656.10      6.08      1.50     428.90    277.31
5.000    25.00       .00        .00     647.40   1041.00    658.66       .00     658.68       .74       .67    1149.67   1211.59

0.000    25.00       .00        .00     647.00    322.00    654.03       .00     654.09      3.85      1.49     176.70    164.10
0.000    25.00       .00        .00     647.00    406.00    654.60       .00     654.66      3.97      1.59     232.03    203.73
0.000    25.00       .00        .00     647.00    450.00    654.86       .00     654.92      3.69      1.57     271.80    234.22
0.000    25.00       .00        .00     647.00    527.00    655.34       .00     655.38      3.05      1.49     347.38    301.93
0.000    25.00       .00        .00     647.00    684.00    656.07       .00     656.11      2.35      1.38     484.90    446.56
0.000    25.00       .00        .00     647.00   1041.00    658.67       .00     658.68       .57       .81    1105.93   1380.97

5.000     5.00    654.20     669.30     647.00    322.00    653.96       .00     654.15      4.13      3.73     115.09    158.49
5.000     5.00    654.20     669.30     647.00    406.00    654.49       .00     654.77      6.31      4.61     131.96    161.58
5.000     5.00    654.20     669.30     647.00    450.00    654.74       .00     655.05      7.07      4.88     153.64    169.19
5.000     5.00    654.20     669.30     647.00    527.00    655.23       .00     655.49      6.95      4.84     211.75    199.86
5.000     5.00    654.20     669.30     647.00    684.00    656.02       .00     656.17      5.46      4.29     329.45    292.69
5.000     5.00    654.20     669.30     647.00   1041.00    658.66       .00     658.68      1.04      1.56     894.27   1021.09

35.000   20.00    654.20     669.30     647.00    322.00    653.97       .00     654.16      4.13      3.73     115.10    158.48
35.000   20.00    654.20     669.30     647.00    406.00    654.50       .00     654.78      6.30      4.61     132.75    161.81
35.000   20.00    654.20     669.30     647.00    450.00    654.76       .00     655.06      7.04      4.87     154.75    169.64
35.000   20.00    654.20     669.30     647.00    527.00    655.25       .00     655.50      6.90      4.82     213.03    200.68
35.000   20.00    654.20     669.30     647.00    684.00    656.03       .00     656.18      5.42      4.27     330.74    293.87
35.000   20.00    654.20     669.30     647.00   1041.00    658.66       .00     658.69      1.04      1.57     893.47   1019.78

40.000    5.00       .00        .00     646.90    322.00    654.13       .00     654.20     15.15      2.10     153.00     82.72
40.000    5.00       .00        .00     646.90    406.00    654.81       .00     654.86     10.29      1.84     256.09    126.57
40.000    5.00       .00        .00     646.90    450.00    655.11       .00     655.14      7.74      1.66     323.03    161.74
40.000    5.00       .00        .00     646.90    527.00    655.55       .00     655.58      4.90      1.39     446.13    238.00
40.000    5.00       .00        .00     646.90    684.00    656.21       .00     656.22      2.72      1.11     697.26    414.40
40.000    5.00       .00        .00     646.90   1041.00    658.69       .00     658.69       .32       .47    1942.95   1850.96

70.000   30.00       .00   -    .00     646.90    322.00    654.17       .00     654.24     10.64      2.06     164.23     98.71
70.000   30.00       .00        .00     646.90    406.00    654.84       .00     654.89      7.30      1.81     260.62    150.30
70.000   30.00       .00        .00     646.90    450.00    655.13       .00     655.16      5.52      1.64     327.54    191.60
70.000   30.00       .00        .00     646.90    527.00    655.57       .00     655.59      3.51      1.37     450.74    281.24
70.000   30.00       .00        .00     646.90    684.00    656.21       .00     656.23      1.96      1.10     702.33    488.18
70.000   30.00       .00        .00     646.90   1041.00    658.69       .00     658.69       .23       .47    1944.13   2161.41
```

```
    SECNO      XLCH      ELTRD      ELLC      ELMIN       Q       CWSEL      CRIWS       EG       10K*S       VCH       AREA

  46140.000   270.00       .00       .00    647.50    322.00    654.26       .00    654.26        .22        .38     947.46
  46140.000   270.00       .00       .00    647.50    406.00    654.90       .00    654.90        .17        .36    1237.42
  46140.000   270.00       .00       .00    647.50    450.00    655.18       .00    655.18        .16        .35    1381.94
  46140.000   270.00       .00       .00    647.50    527.00    655.60       .00    655.60        .14        .34    1610.05
  46140.000   270.00       .00       .00    647.50    684.00    656.24       .00    656.24        .13        .35    1970.30
  46140.000   270.00       .00       .00    647.50   1041.00    658.69       .00    658.70        .05        .26    3464.65

  46290.000   150.00       .00       .00    647.70    322.00    654.27       .00    654.27        .04        .16    1983.08
  46290.000   150.00       .00       .00    647.70    406.00    654.90       .00    654.90        .05        .18    2292.63
  46290.000   150.00       .00       .00    647.70    450.00    655.18       .00    655.18        .05        .19    2438.99
  46290.000   150.00       .00       .00    647.70    527.00    655.60       .00    655.60        .05        .20    2672.58
  46290.000   150.00       .00       .00    647.70    684.00    656.24       .00    656.24        .06        .23    3050.73
  46290.000   150.00       .00       .00    647.70   1041.00    658.70       .00    658.70        .04        .22    4663.15

  46540.000   250.00       .00       .00    648.20    322.00    654.27       .00    654.27        .19        .32    1002.32
  46540.000   250.00       .00       .00    648.20    406.00    654.91       .00    654.91        .21        .36    1127.30
  46540.000   250.00       .00       .00    648.20    450.00    655.18       .00    655.18        .22        .38    1226.20
  46540.000   250.00       .00       .00    648.20    527.00    655.60       .00    655.61        .22        .40    1377.35
  46540.000   250.00       .00       .00    648.20    684.00    656.24       .00    656.24        .25        .45    1606.89
  46540.000   250.00       .00       .00    648.20   1041.00    658.70       .00    658.70        .12        .38    2788.65

  46610.000    70.00       .00       .00    648.00    322.00    654.22       .00    654.32      19.13       2.56     125.54
  46610.000    70.00       .00       .00    648.00    406.00    654.87       .00    654.95      14.56       2.36     212.84
  46610.000    70.00       .00       .00    648.00    450.00    655.16       .00    655.21       9.54       1.97     283.16
  46610.000    70.00       .00       .00    648.00    527.00    655.59       .00    655.62       5.62       1.57     383.38
  46610.000    70.00       .00       .00    648.00    684.00    656.23       .00    656.26       3.08       1.26     571.32
  46610.000    70.00       .00       .00    648.00   1041.00    658.70       .00    658.70        .42        .58    1469.37

  46620.000    10.00    654.80    659.40    647.80    322.00    654.13       .00    654.44       8.40       4.52      71.30
  46620.000    10.00    654.80    659.40    647.80    406.00    654.67    651.20    655.18      13.35       5.69      71.30
  46620.000    10.00    654.80    659.40    647.80    450.00    654.89    651.41    655.51      16.35       6.30      73.52
  46620.000    10.00    654.80    659.40    647.80    527.00    655.36    651.76    655.87      15.91       6.22     148.02
  46620.000    10.00    654.80    659.40    647.80    684.00    656.20       .00    656.30       6.73       3.54     373.17
  46620.000    10.00    654.80    659.40    647.80   1041.00    658.69       .00    658.71        .52       1.25    1293.33

  46650.000    30.00    654.80    659.40    647.80    322.00    654.15       .00    654.47       8.40       4.52      71.30
  46650.000    30.00    654.80    659.40    647.80    406.00    654.71    651.20    655.22      13.35       5.69      71.30
  46650.000    30.00    654.80    659.40    647.80    450.00    654.95    651.41    655.56      16.28       6.29      76.35
  46650.000    30.00    654.80    659.40    647.80    527.00    655.90       .00    656.02       7.76       3.67     276.67
  46650.000    30.00    654.80    659.40    647.80    684.00    656.23       .00    656.32       6.54       3.50     377.79
  46650.000    30.00    654.80    659.40    647.80   1041.00    658.70       .00    658.71        .52       1.25    1283.36

  46660.000    10.00       .00       .00    647.80    322.00    654.28       .00    654.51      21.57       3.81      84.55
  46660.000    10.00       .00       .00    647.80    406.00    655.32       .00    655.36       4.77       1.99     286.10
  46660.000    10.00       .00       .00    647.80    450.00    655.72       .00    655.74       2.03       1.35     414.43
  46660.000    10.00       .00       .00    647.80    527.00    656.04       .00    656.05       1.72       1.27     509.20
  46660.000    10.00       .00       .00    647.80    684.00    656.33       .00    656.35       1.91       1.38     600.94
  46660.000    10.00       .00       .00    647.80   1041.00    658.70       .00    658.71        .36        .71    1471.30
```

```
ECNO      XLCH      ELTRD     ELLC      ELMIN      Q        CWSEL     CRIWS      EG       10K*S      VCH      AREA      .01K

0.000     60.00       .00       .00    649.30    322.00    654.21       .00    654.92    138.70     6.75     47.68     27.34
0.000     60.00       .00       .00    649.30    406.00    654.87       .00    655.67    125.82     7.20     56.42     36.20
0.000     60.00       .00       .00    649.30    450.00    655.17       .00    656.03    123.29     7.45     60.37     40.53
0.000     60.00       .00       .00    649.30    527.00    655.30       .00    656.42    153.17     8.47     62.19     42.58
0.000     60.00       .00       .00    649.30    684.00    656.21    656.21    656.59     20.96     3.53    154.04    149.39
0.000     60.00       .00       .00    649.30   1041.00    658.61       .00    658.76      8.27     2.81    343.09    362.05

0.000     80.00    656.80    655.50    649.30    322.00    654.21       .00    654.92    138.68     6.75     47.68     27.34
0.000     80.00    656.80    655.50    649.30    406.00    654.87       .00    655.67    125.66     7.19     56.44     36.22
0.000     80.00    656.80    655.50    649.30    450.00    655.17       .00    656.03    123.15     7.45     60.40     40.55
0.000     80.00    656.80    655.50    649.30    527.00    655.31       .00    656.42    152.98     8.47     62.22     42.61
0.000     80.00    658.80    655.50    649.30    684.00    656.74       .00    657.84    105.21     8.40     81.40     66.69
0.000     80.00    656.80    655.50    649.30   1041.00    659.99       .00    660.03      2.24     1.63    646.82    695.38

0.000     80.00       .00       .00    648.30    322.00    655.04       .00    655.07      3.49     1.39    238.36    172.48
0.000     80.00       .00       .00    648.30    406.00    655.79       .00    655.83      3.07     1.42    291.33    231.71
0.000     80.00       .00       .00    648.30    450.00    656.15       .00    656.18      2.88     1.43    319.01    265.26
0.000     80.00       .00       .00    648.30    527.00    656.57       .00    656.60      2.94     1.51    352.48    307.55
0.000     80.00       .00       .00    648.30    684.00    657.97       .00    658.00      1.99     1.40    481.05    485.46
0.000     80.00       .00       .00    648.30   1041.00    660.01       .00    660.04      1.42     1.37    735.21    874.85

00.000   220.00       .00       .00    649.00    322.00    655.13       .00    655.17      5.78     1.65    200.13    133.94
00.000   220.00       .00       .00    649.00    406.00    655.87       .00    655.91      5.00     1.69    247.05    181.64
00.000   220.00       .00       .00    649.00    450.00    656.22       .00    656.26      4.47     1.67    292.44    212.56
00.000   220.00       .00       .00    649.00    527.00    656.64       .00    656.67      3.89     1.63    366.58    267.24
00.000   220.00       .00       .00    649.00    684.00    658.02       .00    658.03      1.30     1.07    709.35    600.96
00.000   220.00       .00       .00    649.00   1041.00    660.05       .00    660.06       .45      .74   1393.55   1551.87

00.000   300.00       .00       .00    649.90    322.00    655.29       .00    655.32      3.95     1.25    258.27    162.00
00.000   300.00       .00       .00    649.90    406.00    656.02       .00    656.05      3.91     1.33    304.70    205.25
00.000   300.00       .00       .00    649.90    450.00    656.36       .00    656.39      3.91     1.37    327.32    227.55
00.000   300.00       .00       .00    649.90    527.00    656.76       .00    656.80      4.21     1.49    355.07    256.92
00.000   300.00       .00       .00    649.90    684.00    658.06       .00    658.10      3.47     1.52    455.13    367.16
00.000   300.00       .00       .00    649.90   1041.00    660.06       .00    660.10      3.11     1.65    631.77    589.87

25.000   225.00       .00       .00    649.90    322.00    655.38       .00    655.40      3.72     1.22    263.70    166.92
25.000   225.00       .00       .00    649.90    406.00    656.11       .00    656.13      3.70     1.31    310.85    211.19
25.000   225.00       .00       .00    649.90    450.00    656.45       .00    656.48      3.69     1.35    333.72    234.29
25.000   225.00       .00       .00    649.90    527.00    656.86       .00    656.89      3.99     1.46    361.56    263.86
25.000   225.00       .00       .00    649.90    684.00    658.14       .00    658.18      3.34     1.50    461.26    374.17
25.000   225.00       .00       .00    649.90   1041.00    660.13       .00    660.17      3.02     1.63    638.37    598.96

725.000  100.00       .00       .00    645.90    322.00    655.40       .00    655.50     10.35     2.51    128.44    100.07
725.000  100.00       .00       .00    645.90    406.00    656.13       .00    656.19      4.20     1.69    219.88    198.03
725.000  100.00       .00       .00    645.90    450.00    656.47       .00    656.53      4.24     1.73    235.80    218.59
725.000  100.00       .00       .00    645.90    527.00    656.88       .00    656.95      4.60     1.86    256.18    245.66
725.000  100.00       .00       .00    645.90    684.00    658.16       .00    658.23      3.82     1.83    329.86    350.17
725.000  100.00       .00       .00    645.90   1041.00    660.15       .00    660.20      2.61     1.69    546.98    643.86
```

```
     SECNO      XLCH      ELTRD     ELLC      ELMIN       Q        CWSEL     CRIWS      EG       10K*S      VCH       AREA     .

   47730.000     5.00    658.60    671.20    645.90    322.00    655.32      .00     655.59      8.55      4.19     76.80   11
   47730.000     5.00    658.60    671.20    645.90    406.00    655.95      .00     656.38     13.59      5.29     76.80   11
   47730.000     5.00    658.60    671.20    645.90    450.00    656.24      .00     656.77     16.69      5.86     76.80   11
   47730.000     5.00    658.60    671.20    645.90    527.00    656.55      .00     657.28     22.89      6.86     76.80   11
   47730.000     5.00    658.60    671.20    645.90    684.00    657.58    650.78    658.81     38.56      8.91     76.80   11
   47730.000     5.00    658.60    671.20    645.90   1041.00    659.71    651.87    660.65     42.37      8.70    177.48   15

   47760.000    30.00    658.60    671.20    645.90    322.00    655.34      .00     655.62      8.55      4.19     76.80   11
   47760.000    30.00    658.60    671.20    645.90    406.00    655.99      .00     656.42     13.59      5.29     76.80   11
   47760.000    30.00    658.60    671.20    645.90    450.00    656.29      .00     656.82     16.69      5.86     76.80   11
   47760.000    30.00    658.60    671.20    645.90    527.00    656.62      .00     657.35     22.89      6.86     76.80   11
   47760.000    30.00    658.60    671.20    645.90    684.00    657.70    650.78    658.93     38.56      8.91     76.80   11
*  47760.000    30.00    658.60    671.20    645.90   1041.00    659.72    651.87    660.66     42.61      8.72    176.95   15

   47765.000     5.00      .00       .00     648.60    322.00    655.63      .00     655.69     10.54      1.90    169.41    9
   47765.000     5.00      .00       .00     648.60    406.00    656.48      .00     656.54     10.05      1.94    209.37   12
   47765.000     5.00      .00       .00     648.60    450.00    656.91      .00     656.97      9.60      1.94    231.92   14
   47765.000     5.00      .00       .00     648.60    527.00    657.50      .00     657.56      9.42      1.99    265.31   17
   47765.000     5.00      .00       .00     648.60    684.00    659.25      .00     659.29      4.68      1.71    425.92   31
   47765.000     5.00      .00       .00     648.60   1041.00    660.90      .00     660.93      2.83      1.56    713.60   61

   47805.000    40.00      .00       .00     648.60    322.00    655.67      .00     655.73     10.30      1.88    171.05   10
   47805.000    40.00      .00       .00     648.60    406.00    656.52      .00     656.58      9.79      1.92    211.69   12
   47805.000    40.00      .00       .00     648.60    450.00    656.95      .00     657.01      9.36      1.92    234.29   14
   47805.000    40.00      .00       .00     648.60    527.00    657.54      .00     657.60      9.24      1.97    267.30   17
   47805.000    40.00      .00       .00     648.60    684.00    659.27      .00     659.31      4.61      1.70    428.62   31
   47805.000    40.00      .00       .00     648.60   1041.00    660.91      .00     660.94      2.82      1.56    713.90   61

   48100.000   295.00      .00       .00     648.80     87.00    655.77      .00     655.77       .09       .23    378.56   28
   48100.000   295.00      .00       .00     648.80     90.00    656.61      .00     656.61       .06       .21    439.41   36
   48100.000   295.00      .00       .00     648.80     90.00    657.04      .00     657.04       .05       .19    470.94   40
   48100.000   295.00      .00       .00     648.80     90.00    657.63      .00     657.63       .04       .18    515.88   46
   48100.000   295.00      .00       .00     648.80    522.00    659.35      .00     659.36       .59       .80    657.40   67
   48100.000   295.00      .00       .00     648.80    916.00    660.97      .00     660.99       .97      1.15    809.15   92

   48290.000   190.00      .00       .00     649.70     87.00    655.77      .00     655.77       .27       .34    252.81   16
   48290.000   190.00      .00       .00     649.70     90.00    656.62      .00     656.62       .16       .29    309.98   22
   48290.000   190.00      .00       .00     649.70     90.00    657.04      .00     657.04       .12       .26    340.89   25
   48290.000   190.00      .00       .00     649.70     90.00    657.63      .00     657.63       .09       .23    385.86   30
   48290.000   190.00      .00       .00     649.70    522.00    659.36      .00     659.37      1.15       .90    549.76   48
   48290.000   190.00      .00       .00     649.70    916.00    660.99      .00     661.02      1.45      1.09    754.34   76.

   48510.000   220.00      .00       .00     648.80     87.00    655.78      .00     655.78       .66       .43    202.70   10
   48510.000   220.00      .00       .00     648.80     90.00    656.62      .00     656.62       .42       .37    245.56   13
   48510.000   220.00      .00       .00     648.80     90.00    657.05      .00     657.05       .33       .33    268.69   15
   48510.000   220.00      .00       .00     648.80     90.00    657.63      .00     657.64       .24       .30    302.30   18
   48510.000   220.00      .00       .00     648.80    522.00    659.39      .00     659.41      3.05      1.24    427.81   29
   48510.000   220.00      .00       .00     648.80    916.00    661.03      .00     661.07      3.58      1.56    586.70   48
```

```
ECNO      XLCH      ELTRD      ELLC      ELMIN      Q       CWSEL     CRIWS      EG      10K*S      VCH      AREA      .01K

5.000    305.00      .00        .00     650.10    87.00    655.78      .00     655.78     .05       .13     538.47    404.40
5.000    305.00      .00        .00     650.10    90.00    656.62      .00     656.62     .02       .09     743.63    669.73
5.000    305.00      .00        .00     650.10    90.00    657.05      .00     657.05     .01       .08     856.76    831.63
5.000    305.00      .00        .00     650.10    90.00    657.64      .00     657.64     .01       .06    1024.32   1089.32
5.000    305.00      .00        .00     650.10   522.00    659.42      .00     659.42     .06       .21    1636.05   2148.13
5.000    305.00      .00        .00     650.10   916.00    661.07      .00     661.08     .07       .26    2257.01   3495.51

30.000   265.00      .00        .00     650.10    87.00    655.78      .00     655.78     .08       .15     476.86    306.18
30.000   265.00      .00        .00     650.10    90.00    656.62      .00     656.62     .03       .11     637.67    492.02
30.000   265.00      .00        .00     650.10    90.00    657.05      .00     657.05     .02       .09     727.05    606.42
30.000   265.00      .00        .00     650.10    90.00    657.64      .00     657.64     .01       .07     890.33    799.56
30.000   265.00      .00        .00     650.10   522.00    659.42      .00     659.42     .09       .24    1553.85   1725.59
30.000   265.00      .00        .00     650.10   916.00    661.07      .00     661.08     .09       .28    2308.00   3027.78

00.000   220.00      .00        .00     650.10    87.00    655.78      .00     655.79     .06       .29     362.96    552.95
00.000   220.00      .00        .00     650.10    90.00    656.62      .00     656.63     .03       .21     539.68    553.23
00.000   220.00      .00        .00     650.10    90.00    657.05      .00     657.05     .02       .18     660.42    691.55
00.000   220.00      .00        .00     650.10    90.00    657.64      .00     657.64     .01       .14     840.52    924.62
00.000   220.00      .00        .00     650.10   522.00    659.42      .00     659.43     .07       .45    1618.94   1995.15
00.000   220.00      .00        .00     650.10   916.00    661.08      .00     661.08     .06       .46    2780.66   3846.32

80.000   380.00      .00        .00     649.80    87.00    655.79      .00     655.79     .12       .41     310.67    246.42
80.000   380.00      .00        .00     649.80    90.00    656.63      .00     656.63     .04       .25     548.37    470.61
80.000   380.00      .00        .00     649.80    90.00    657.05      .00     657.05     .02       .20     695.97    632.61
80.000   380.00      .00        .00     649.80    90.00    657.64      .00     657.64     .01       .14     918.86    911.38
80.000   380.00      .00        .00     649.80   522.00    659.43      .00     659.43     .06       .41    1750.01   2184.34
80.000   380.00      .00        .00     649.80   916.00    661.08      .00     661.08     .05       .44    2707.22   4010.14

80.000   300.00      .00        .00     646.70    87.00    655.79      .00     655.79     .00       .05    1188.76   1926.54
80.000   300.00      .00        .00     646.70    90.00    656.63      .00     656.63     .00       .04    1482.91   2452.49
80.000   300.00      .00        .00     646.70    90.00    657.05      .00     657.05     .00       .04    1640.01   2760.58
80.000   300.00      .00        .00     646.70    90.00    657.64      .00     657.64     .00       .04    1865.75   3229.41
80.000   300.00      .00        .00     646.70   522.00    659.43      .00     659.43     .01       .17    2699.20   5028.30
80.000   300.00      .00        .00     646.70   916.00    661.08      .00     661.08     .02       .24    3637.91   7263.54

20.000   340.00      .00        .00     649.90    87.00    655.79      .00     655.79     .07       .25     420.95    324.07
20.000   340.00      .00        .00     649.90    90.00    656.63      .00     656.63     .02       .16     663.55    582.11
20.000   340.00      .00        .00     649.90    90.00    657.05      .00     657.05     .01       .13     824.34    763.97
20.000   340.00      .00        .00     649.90    90.00    657.64      .00     657.64     .01       .10    1055.73   1069.50
320.000  340.00      .00        .00     649.90   522.00    659.43      .00     659.43     .05       .30    1826.50   2369.14
320.000  340.00      .00        .00     649.90   916.00    661.08      .00     661.08     .05       .35    2625.36   4061.03

560.000  240.00      .00        .00     650.20    87.00    655.79      .00     655.79     .13       .31     341.54    242.93
560.000  240.00      .00        .00     650.20    90.00    656.63      .00     656.63     .04       .20     551.63    447.82
560.000  240.00      .00        .00     650.20    90.00    657.05      .00     657.05     .02       .16     671.06    587.76
560.000  240.00      .00        .00     650.20    90.00    657.64      .00     657.64     .01       .12     844.33    819.32
560.000  240.00      .00        .00     650.20   522.00    659.43      .00     659.43     .08       .40    1466.16   1304.01
560.000  240.00      .00        .00     650.20   916.00    661.08      .00     661.09     .08       .43    2454.01   3333.42
```

```
     SECNO      XLCH      ELTRD      ELLC      ELMIN       Q        CWSEL      CRIWS       EG      10K*S      VCH       AREA     .

   50585.000    25.00       .00       .00     650.20     87.00    655.79       .00     655.79      .13       .31     341.80   24
   50585.000    25.00       .00       .00     650.20     90.00    656.63       .00     656.63      .04       .20     551.71   44
   50585.000    25.00       .00       .00     650.20     90.00    657.05       .00     657.05      .02       .16     671.11   58
   50585.000    25.00       .00       .00     650.20     90.00    657.64       .00     657.64      .01       .12     844.35   81
   50585.000    25.00       .00       .00     650.20    522.00    659.43       .00     659.43      .08       .40    1466.31  180
   50585.000    25.00       .00       .00     650.20    916.00    661.08       .00     661.09      .08       .43    2454.38  333

   50685.000   100.00       .00       .00     649.00     87.00    655.79       .00     655.80      .61       .76     114.07   11
   50685.000   100.00       .00       .00     649.00     90.00    656.63       .00     656.63      .29       .58     175.09   16
   50685.000   100.00       .00       .00     649.00     90.00    657.05       .00     657.05      .19       .49     231.15   20
   50685.000   100.00       .00       .00     649.00     90.00    657.64       .00     657.64      .10       .37     324.31   28
   50685.000   100.00       .00       .00     649.00    522.00    659.43       .00     659.44      .48       .95     741.51   75
   50685.000   100.00       .00       .00     649.00    916.00    661.08       .00     661.09      .25       .76    1660.19  182

   50690.000     5.00    658.50    660.20     649.00     87.00    655.75       .00     655.84     5.92      2.37      36.64    3
   50690.000     5.00    658.50    660.20     649.00     90.00    656.58       .00     656.68     6.34      2.46      36.64    3
   50690.000     5.00    658.50    660.20     649.00     90.00    657.01       .00     657.10     6.34      2.46      36.64    3
   50690.000     5.00    658.50    660.20     649.00     90.00    657.59       .00     657.69     6.34      2.46      36.64    3
   50690.000     5.00    658.50    660.20     649.00    522.00    659.35       .00     659.52    23.06      4.54     218.50   10
   50690.000     5.00    658.50    660.20     649.00    916.00    661.08       .00     661.09      .93      1.27    1167.18   95

   50730.000    40.00    658.50    660.20     649.00     87.00    655.77       .00     655.86     5.92      2.37      36.64    3
   50730.000    40.00    658.50    660.20     649.00     90.00    656.61       .00     656.70     6.34      2.46      36.64    3
   50730.000    40.00    658.50    660.20     649.00     90.00    657.03       .00     657.12     6.34      2.46      36.64    3
   50730.000    40.00    658.50    660.20     649.00     90.00    657.62       .00     657.71     6.34      2.46      36.64    3
   50730.000    40.00    658.50    660.20     649.00    522.00    659.52       .00     659.61    12.87      3.53     293.38   14
   50730.000    40.00    658.50    660.20     649.00    916.00    661.08       .00     661.09      .93      1.27    1167.03   95

   50735.000     5.00       .00       .00     649.20     87.00    655.88       .00     655.89      .33       .56     155.05   15
   50735.000     5.00       .00       .00     649.20     90.00    656.72       .00     656.73      .27       .51     175.91   17
   50735.000     5.00       .00       .00     649.20     90.00    657.15       .00     657.15      .23       .48     187.20   18
   50735.000     5.00       .00       .00     649.20     90.00    657.74       .00     657.74      .18       .44     203.00   21
   50735.000     5.00       .00       .00     649.20    522.00    659.63       .00     659.64      .46       .72     787.17   76
   50735.000     5.00       .00       .00     649.20    916.00    661.09       .00     661.10      .41       .76    1186.98  142

   50785.000    50.00       .00       .00     649.20     87.00    655.88       .00     655.89      .33       .56     155.26   15
   50785.000    50.00       .00       .00     649.20     90.00    656.73       .00     656.73      .26       .49     201.52   17
   50785.000    50.00       .00       .00     649.20     90.00    657.15       .00     657.15      .19       .42     260.54   20
   50785.000    50.00       .00       .00     649.20     90.00    657.74       .00     657.74      .10       .31     356.27   28
   50785.000    50.00       .00       .00     649.20    522.00    659.63       .00     659.64      .46       .72     787.79   76
   50785.000    50.00       .00       .00     649.20    916.00    661.09       .00     661.10      .41       .76    1188.31  142

   51040.000   255.00       .00       .00     650.20     87.00    655.90       .00     655.90      .52       .34     269.42   12
   51040.000   255.00       .00       .00     650.20     90.00    656.73       .00     656.74      .17       .23     411.37   21
   51040.000   255.00       .00       .00     650.20     90.00    657.16       .00     657.16      .10       .18     506.18   29
   51040.000   255.00       .00       .00     650.20     90.00    657.74       .00     657.74      .05       .13     654.16   42
   51040.000   255.00       .00       .00     650.20    522.00    659.65       .00     659.65      .24       .38    1165.56  106
   51040.000   255.00       .00       .00     650.20    916.00    661.10       .00     661.11      .27       .46    1579.87· 174
```

```
ECNO      XLCH      ELTRD     ELLC      ELMIN      Q        CWSEL     CRIWS      EG       10K*S      VCH      AREA      .01K

5.000    325.00      .00       .00     648.90     87.00    655.92      .00     655.93      2.07      .74    117.87     60.50
5.000    325.00      .00       .00     648.90     90.00    656.75      .00     656.75      2.67      .58    161.80     55.10
5.000    325.00      .00       .00     648.90     90.00    657.16      .00     657.17      1.32      .45    208.75     78.39
5.000    325.00      .00       .00     648.90     90.00    657.74      .00     657.74       .50      .31    299.72    127.12
5.000    325.00      .00       .00     648.90    522.00    659.66      .00     659.66       .99      .57    768.23    525.31
5.000    325.00      .00       .00     648.90    916.00    661.11      .00     661.12       .81      .60   1131.37   1016.74
```

```
ADDALLYR.DAT/OUT  HEC-1

SUMMARY PRINTOUT TABLE  150


        SECNO        Q        CWSEL     DIFWSP     DIFWSX     DIFKWS    TOPWID      XLCH

          .000    980.00     615.67        .00        .00        .67    216.20        .00
          .000   1381.00     616.62        .95        .00        .62    218.61        .00
          .000   1508.00     616.90        .28        .00       -.90    219.33        .00
          .000   1810.00     617.50        .60        .00       -.30    220.84        .00
          .000   2137.00     618.06        .56        .00        .26    222.26        .00
          .000   2587.00     618.85        .79        .00       -.55    224.28        .00

       200.000    980.00     615.77        .00        .10        .00    216.46     200.00
       200.000   1381.00     616.72        .95        .10        .00    218.87     200.00
       200.000   1508.00     617.00        .28        .10        .00    219.58     200.00
       200.000   1810.00     617.60        .60        .10        .00    221.09     200.00
       200.000   2137.00     618.16        .56        .10        .00    222.52     200.00
       200.000   2587.00     618.95        .79        .10        .00    224.53     200.00

       440.000    980.00     615.89        .00        .12        .00    249.27     240.00
       440.000   1381.00     616.84        .95        .12        .00    367.56     240.00
       440.000   1508.00     617.12        .28        .12        .00    425.40     240.00
       440.000   1810.00     617.71        .60        .12        .00    429.87     240.00
       440.000   2137.00     618.28        .56        .12        .00    433.05     240.00
       440.000   2587.00     619.07        .79        .12        .00    439.53     240.00

       755.000    980.00     616.12        .00        .23        .00    234.15     315.00
       755.000   1381.00     617.05        .93        .21        .00    310.94     315.00
       755.000   1508.00     617.31        .27        .20        .00    316.05     315.00
       755.000   1810.00     617.88        .57        .17        .00    326.80     315.00
       755.000   2137.00     618.43        .54        .15        .00    337.34     315.00
       755.000   2587.00     619.19        .76        .12        .00    360.65     315.00

      1165.000    980.00     616.54        .00        .42        .00    243.08     410.00
      1165.000   1381.00     617.40        .86        .35        .00    277.58     410.00
      1165.000   1508.00     617.64        .24        .33        .00    279.51     410.00
      1165.000   1810.00     618.16        .52        .27        .00    283.57     410.00
      1165.000   2137.00     618.65        .49        .22        .00    284.42     410.00
      1165.000   2587.00     619.33        .68        .14        .00    307.28     410.00

      1400.000    980.00     616.92        .00        .38        .00     66.96     235.00
      1400.000   1381.00     617.80        .88        .40        .00    163.77     235.00
      1400.000   1508.00     618.06        .26        .42        .00    164.06     235.00
      1400.000   1810.00     618.63        .57        .48        .00    164.70     235.00
      1400.000   2137.00     619.18        .55        .54        .00    165.31     235.00
      1400.000   2587.00     619.93        .75        .60        .00    210.89     235.00
```

```
ECNO       Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

.000     980.00     617.07      .00       .15       .00      78.86    100.00
.000    1381.00     617.87      .80       .07       .00      82.55    100.00
.000    1508.00     618.13      .26       .07       .00      83.77    100.00
.000    1810.00     618.70      .57       .07       .00      86.40    100.00
.000    2137.00     619.25      .55       .06       .00      88.95    100.00
.000    2587.00     619.98      .74       .05       .00      92.37    100.00

.000     980.00     617.08      .00       .01       .00      78.87     50.00
.000    1381.00     617.88      .80       .01       .00      82.59     50.00
.000    1508.00     618.14      .26       .01       .00      83.81     50.00
.000    1810.00     618.71      .57       .01       .00      86.45     50.00
.000    2137.00     619.26      .55       .01       .00      89.01     50.00
.000    2587.00     620.00      .74       .02       .00      92.44     50.00

0.000    980.00     617.12      .00       .04       .00      60.78     50.00
0.000   1381.00     617.94      .81       .06       .00      63.66     50.00
0.000   1508.00     618.20      .26       .06       .00      64.59     50.00
0.000   1810.00     618.78      .57       .07       .00      66.63     50.00
0.000   2137.00     619.33      .56       .07       .00      68.56     50.00
0.000   2587.00     620.07      .74       .07       .00      93.20     50.00

5.000    980.00     617.61      .00       .49       .00      62.48    385.00
5.000   1381.00     618.61     1.00       .67       .00      66.02    385.00
5.000   1508.00     618.92      .31       .72       .00      67.12    385.00
5.000   1810.00     619.60      .68       .83       .00      73.45    385.00
5.000   2137.00     620.26      .66       .93       .00     101.26    385.00
5.000   2587.00     621.08      .83      1.01       .00     208.45    385.00

5.000    980.00     617.75      .00       .14       .00      62.30    130.00
5.000   1381.00     618.80     1.05       .19       .00      65.98    130.00
5.000   1508.00     619.12      .32       .20       .00      67.12    130.00
5.000   1810.00     619.83      .71       .23       .00      74.56    130.00
5.000   2137.00     620.50      .67       .24       .00     103.19    130.00
5.000   2587.00     621.33      .83       .25       .00     141.07    130.00

15.000   980.00     617.87      .00       .12       .00      69.70    100.00
15.000  1381.00     618.96     1.09       .16       .00      76.41    100.00
15.000  1508.00     619.29      .33       .17       .00      77.49    100.00
15.000  1810.00     620.02      .73       .19       .00      78.73    100.00
15.000  2137.00     620.71      .69       .20       .00      79.46    100.00
15.000  2587.00     621.52      .81       .19       .00      79.76    100.00

65.000   980.00     617.88      .00       .01       .00      69.83     50.00
65.000  1381.00     618.98     1.09       .01       .00      76.48     50.00
65.000  1508.00     619.31      .33       .01       .00      77.56     50.00
65.000  1810.00     620.04      .73       .02       .00      78.75     50.00
65.000  2137.00     620.73      .69       .02       .00      79.47     50.00
65.000  2587.00     621.75     1.02       .23       .00      79.60     50.00
```

```
     SECNO        Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   2315.000    980.00    617.93      .00       .05       .00     55.10     50.00
   2315.000   1381.00    619.03     1.10       .05       .00     58.55     50.00
   2315.000   1508.00    619.36      .33       .05       .00     59.60     50.00
   2315.000   1810.00    620.09      .73       .05       .00     71.66     50.00
   2315.000   2137.00    620.78      .69       .06       .00     78.32     50.00
   2315.000   2587.00    621.81     1.02       .05       .00     79.63     50.00

   2590.000    980.00    618.31      .00       .38       .00     55.01    275.00
   2590.000   1381.00    619.50     1.20       .47       .00     58.78    275.00
   2590.000   1508.00    619.86      .36       .50       .00     59.90    275.00
   2590.000   1810.00    620.63      .77       .54       .00     77.62    275.00
   2590.000   2137.00    621.35      .72       .57       .00     78.54    275.00
   2590.000   2587.00    622.36     1.01       .56       .00     79.83    275.00

   3065.000    980.00    618.86      .00       .55       .00     77.98    475.00
   3065.000   1381.00    620.16     1.31       .66       .00     87.11    475.00
   3065.000   1508.00    620.54      .38       .68       .00     90.22    475.00
   3065.000   1810.00    621.37      .83       .74       .00    178.81    475.00
   3065.000   2137.00    622.13      .76       .78       .00    302.80    475.00
   3065.000   2587.00    623.13     1.00       .77       .00    391.12    475.00

   3360.000    919.00    619.13      .00       .27       .00     66.19    295.00
   3360.000   1291.00    620.47     1.34       .31       .00     71.72    295.00
   3360.000   1419.00    620.86      .39       .31       .00     73.32    295.00
   3360.000   1687.00    621.70      .84       .33       .00     76.79    295.00
   3360.000   1991.00    622.47      .77       .34       .00     79.96    295.00
   3360.000   2400.00    623.44      .97       .31       .00     94.67    295.00

   3660.000    919.00    619.41      .00       .28       .00     64.44    300.00
   3660.000   1291.00    620.79     1.38       .32       .00     69.30    300.00
   3660.000   1419.00    621.19      .40       .34       .00     70.73    300.00
   3660.000   1687.00    622.05      .86       .35       .00     73.75    300.00
   3660.000   1991.00    622.84      .79       .38       .00     79.63    300.00
   3660.000   2400.00    623.82      .98       .39       .00    115.44    300.00

   3905.000    919.00    619.63      .00       .21       .00     63.66    245.00
   3905.000   1291.00    621.04     1.41       .25       .00     69.23    245.00
   3905.000   1419.00    621.45      .41       .26       .00     70.86    245.00
   3905.000   1687.00    622.32      .87       .27       .00     74.30    245.00
   3905.000   1991.00    623.13      .81       .29       .00     95.69    245.00
   3905.000   2400.00    624.12      .99       .30       .00    122.76    245.00

   4115.000    919.00    619.80      .00       .17       .00     76.87    210.00
   4115.000   1291.00    621.24     1.44       .20       .00     83.37    210.00
   4115.000   1419.00    621.66      .42       .21       .00     85.28    210.00
   4115.000   1687.00    622.55      .88       .22       .00     92.86    210.00
   4115.000   1991.00    623.37      .82       .24       .00    115.56    210.00
   4115.000   2400.00    624.36      .99       .24       .00    126.00    210.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

5.000     919.00    619.96      .00       .16       .00     78.38    240.00
5.000    1291.00    621.42     1.46       .18       .00     84.69    240.00
5.000    1419.00    621.85      .43       .18       .00     86.56    240.00
5.000    1687.00    622.74      .89       .19       .00     93.00    240.00
5.000    1991.00    623.56      .83       .19       .00    102.53    240.00
5.000    2400.00    624.55      .99       .19       .00    115.34    240.00

0.000     919.00    620.11      .00       .15       .00     71.31    235.00
0.000    1291.00    621.58     1.47       .16       .00     76.49    235.00
0.000    1419.00    622.02      .43       .17       .00     78.02    235.00
0.000    1687.00    622.91      .89       .17       .00     81.16    235.00
0.000    1991.00    623.74      .83       .18       .00     84.08    235.00
0.000    2400.00    624.74      .99       .18       .00    100.17    235.00

5.000     919.00    620.38      .00       .27       .00     69.63    355.00
5.000    1291.00    621.87     1.50       .29       .00     75.31    355.00
5.000    1419.00    622.32      .44       .30       .00     76.99    355.00
5.000    1687.00    623.22      .90       .31       .00     80.42    355.00
5.000    1991.00    624.07      .85       .33       .00     96.12    355.00
5.000    2400.00    625.08     1.00       .34       .00    133.72    355.00

30.000    919.00    620.60      .00       .23       .00     80.27    285.00
30.000   1291.00    622.12     1.52       .24       .00     87.29    285.00
30.000   1419.00    622.57      .45       .25       .00     89.37    285.00
30.000   1687.00    623.48      .91       .26       .00     93.60    285.00
30.000   1991.00    624.35      .87       .28       .00     97.60    285.00
30.000   2400.00    625.36     1.01       .28       .00    102.29    285.00

65.000    919.00    620.75      .00       .15       .00     80.98    235.00
65.000   1291.00    622.28     1.52       .16       .00     88.04    235.00
65.000   1419.00    622.73      .45       .16       .00     90.14    235.00
65.000   1687.00    623.65      .92       .17       .00     94.39    235.00
65.000   1991.00    624.52      .87       .18       .00     98.43    235.00
65.000   2400.00    625.55     1.02       .19       .00    103.17    235.00

65.000    919.00    620.81      .00       .06       .00     71.00    100.00
65.000   1291.00    622.34     1.53       .06       .00     71.00    100.00
65.000   1419.00    622.79      .45       .06       .00     71.00    100.00
65.000   1687.00    623.71      .92       .06       .00     71.00    100.00
65.000   1991.00    624.58      .87       .06       .00     71.00    100.00
65.000   2400.00    625.64     1.05       .09       .00    138.78    100.00

75.000    919.00    620.81      .00       .00       .00     71.00    110.00
75.000   1291.00    622.34     1.53       .00       .00     71.00    110.00
75.000   1419.00    622.79      .45       .00       .00     71.00    110.00
75.000   1687.00    623.71      .92       .00       .00     71.00    110.00
75.000   1991.00    624.66      .95       .08       .00     71.00    110.00
75.000   2400.00    625.76     1.11       .13       .00     71.00    110.00
```

```
    SECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   5785.000   919.00    620.84      .00       .03       .00      72.56    110.00
   5785.000  1291.00    622.38     1.53       .04       .00      79.30    110.00
   5785.000  1419.00    622.83      .46       .04       .00      81.31    110.00
   5785.000  1687.00    623.75      .92       .04       .00      85.36    110.00
   5785.000  1991.00    624.71      .95       .05       .00     123.04    110.00
   5785.000  2400.00    625.82     1.11       .05       .00     230.41    110.00

   5905.000   919.00    620.92      .00       .08       .00      72.92    120.00
   5905.000  1291.00    622.47     1.54       .09       .00      79.71    120.00
   5905.000  1419.00    622.92      .46       .09       .00      81.73    120.00
   5905.000  1687.00    623.85      .92       .09       .00      85.79    120.00
   5905.000  1991.00    624.80      .96       .10       .00     132.88    120.00
   5905.000  2400.00    625.92     1.11       .10       .00     239.86    120.00

   6240.000   919.00    621.14      .00       .21       .00      72.24    335.00
   6240.000  1291.00    622.70     1.56       .23       .00      78.98    335.00
   6240.000  1419.00    623.16      .47       .24       .00      80.99    335.00
   6240.000  1687.00    624.10      .93       .25       .00      85.01    335.00
   6240.000  1991.00    625.06      .96       .26       .00      89.17    335.00
   6240.000  2400.00    626.17     1.11       .26       .00     102.43    335.00

   6730.000   919.00    621.43      .00       .29       .00      60.70    490.00
   6730.000  1291.00    623.00     1.57       .30       .00      66.03    490.00
   6730.000  1419.00    623.47      .47       .31       .00      67.62    490.00
   6730.000  1687.00    624.41      .94       .31       .00      70.79    490.00
   6730.000  1991.00    625.37      .97       .31       .00      74.06    490.00
   6730.000  2400.00    626.49     1.12       .32       .00     111.63    490.00

   6765.000   919.00    621.45      .00       .02       .00      60.77     35.00
   6765.000  1291.00    623.02     1.57       .02       .00      66.11     35.00
   6765.000  1419.00    623.49      .47       .02       .00      67.70     35.00
   6765.000  1687.00    624.43      .94       .02       .00      70.87     35.00
   6765.000  1991.00    625.39      .97       .02       .00      74.14     35.00
   6765.000  2400.00    626.51     1.12       .02       .00      79.09     35.00

   6865.000   919.00    621.53      .00       .08       .00      56.37    100.00
   6865.000  1291.00    623.10     1.57       .08      1.57      58.10    100.00
   6865.000  1419.00    623.57      .47       .08      2.04      58.10    100.00
   6865.000  1687.00    624.51      .94       .08      2.98     130.00    100.00
   6865.000  1991.00    625.48      .97       .09      3.95     130.00    100.00
   6865.000  2400.00    626.61     1.13       .10      5.08     130.00    100.00

   6895.000   919.00    621.53      .00       .00       .00      56.38     30.00
   6895.000  1291.00    623.24     1.71       .14      1.71      58.10     30.00
   6895.000  1419.00    623.76      .52       .18      2.23      58.10     30.00
   6895.000  1687.00    624.80     1.04       .29      3.27     130.00     30.00
   6895.000  1991.00    625.75      .96       .28      4.23     130.00     30.00
   6895.000  2400.00    626.85     1.09       .24      5.32     130.00     30.00
```

```
ECNO        Q       CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

5.000     919.00    621.59      .00       .07       .00     62.61     30.00
5.000    1291.00    623.31     1.72       .07      1.72     68.35     30.00
5.000    1419.00    623.83      .52       .07      2.24     70.08     30.00
5.000    1687.00    624.87     1.04       .07      3.27    245.75     30.00
5.000    1991.00    625.81      .94       .05      4.22    320.11     30.00
5.000    2400.00    626.88     1.07       .04      5.29    340.31     30.00

0.000     864.00    621.77      .00       .18       .00     54.23    175.00
0.000    1217.00    623.48     1.71       .17      1.71     58.98    175.00
0.000    1369.00    624.00      .52       .17      2.23     60.47    175.00
0.000    1629.00    625.03     1.03       .16      3.26     67.17    175.00
0.000    1871.00    625.97      .94       .16      4.20     74.79    175.00
0.000    2242.00    627.04     1.07       .16      5.27     76.68    175.00

0.000     864.00    621.86      .00       .09       .00     49.00    220.00
0.000    1217.00    623.58     1.72       .10      1.72     70.88    220.00
0.000    1369.00    624.10      .52       .11      2.24     72.44    220.00
0.000    1629.00    625.14     1.03       .11      3.27     75.52    220.00
0.000    1871.00    626.07      .94       .10      4.21     78.31    220.00
0.000    2242.00    627.15     1.07       .10      5.28     81.50    220.00

20.000     864.00    621.94      .00       .08       .00     49.00    200.00
20.000    1217.00    624.01     2.07       .43      2.07     49.00    200.00
20.000    1369.00    624.66      .65       .56      2.72     49.00    200.00
20.000    1629.00    625.92     1.25       .78      3.98     77.84    200.00
20.000    1871.00    626.87      .95       .80      4.93     80.68    200.00
20.000    2242.00    627.97     1.10       .82      6.03     83.95    200.00

30.000     864.00    621.99      .00       .05       .00     72.59     60.00
30.000    1217.00    624.08     2.08       .06      2.08     88.16     60.00
30.000    1369.00    624.73      .66       .07      2.74     91.15     60.00
30.000    1629.00    625.97     1.24       .05      3.98     94.27     60.00
30.000    1871.00    626.93      .96       .06      4.94     95.00     60.00
30.000    2242.00    628.04     1.11       .07      6.04     95.00     60.00

25.000     864.00    622.08      .00       .09       .00     64.45    145.00
25.000    1217.00    624.15     2.06       .07      2.06    229.76    145.00
25.000    1369.00    624.80      .66       .07      2.72    241.14    145.00
25.000    1629.00    626.03     1.23       .06      3.95    244.39    145.00
25.000    1871.00    626.99      .96       .06      4.91    246.91    145.00
25.000    2242.00    628.10     1.11       .06      6.02    249.84    145.00

45.000     864.00    622.48      .00       .40       .00     61.85    520.00
45.000    1217.00    624.50     2.01       .35      2.01    217.56    520.00
45.000    1369.00    625.15      .65       .34      2.66    231.44    520.00
45.000    1629.00    626.34     1.20       .31      3.86    233.98    520.00
45.000    1871.00    627.29      .94       .30      4.80    235.97    520.00
245.000    2242.00    628.40     1.12       .30      5.92    238.34    520.00
```

```
    SECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   8640.000   864.00    622.89      .00       .41       .00      51.74    395.00
   8640.000  1217.00    624.83     1.94       .33      1.94     219.18    395.00
   8640.000  1369.00    625.47      .64       .32      2.57     229.20    395.00
   8640.000  1629.00    626.63     1.17       .29      3.74     229.20    395.00
   8640.000  1871.00    627.56      .93       .28      4.67     229.20    395.00
   8640.000  2242.00    628.68     1.12       .28      5.79     229.20    395.00

   8850.000   864.00    623.24      .00       .35       .00      68.63    210.00
   8850.000  1217.00    625.05     1.81       .22      1.81     296.30    210.00
   8850.000  1369.00    625.65      .60       .18      2.41     296.30    210.00
   8850.000  1629.00    626.76     1.11       .13      3.52     296.30    210.00
   8850.000  1871.00    627.67      .90       .10      4.42     296.30    210.00
   8850.000  2242.00    628.77     1.10       .08      5.53     296.30    210.00

   8900.000   864.00    623.31      .00       .07       .00      67.96     50.00
   8900.000  1217.00    625.08     1.78       .03      1.78      87.00     50.00
   8900.000  1369.00    625.67      .59       .02      2.36      87.00     50.00
   8900.000  1629.00    626.76     1.09       .00      3.46      87.00     50.00
   8900.000  1871.00    627.66      .89      -.01      4.35      87.00     50.00
   8900.000  2242.00    628.75     1.09      -.02      5.44      87.00     50.00

   9000.000   864.00    623.46      .00       .15       .00      35.99    100.00
   9000.000  1217.00    625.19     1.74       .11      1.74      42.47    100.00
   9000.000  1369.00    625.77      .58       .09      2.31      58.82    100.00
   9000.000  1629.00    626.85     1.08       .09      3.40     127.00    100.00
   9000.000  1871.00    627.74      .89       .08      4.29     127.00    100.00
   9000.000  2242.00    628.83     1.09       .08      5.37     127.00    100.00

   9100.000   864.00    623.46      .00       .00       .00      35.99    100.00
   9100.000  1217.00    625.35     1.89       .16      1.89      36.00    100.00
   9100.000  1369.00    625.96      .61       .19      2.50      36.00    100.00
   9100.000  1629.00    627.02     1.06       .17      3.56     127.00    100.00
   9100.000  1871.00    627.90      .89       .16      4.45     127.00    100.00
   9100.000  2242.00    628.97     1.07       .14      5.51     127.00    100.00

   9200.000   864.00    623.66      .00       .20       .00      68.38    100.00
   9200.000  1217.00    625.59     1.93       .25      1.93     199.22    100.00
   9200.000  1369.00    626.23      .63       .27      2.57     325.85    100.00
   9200.000  1629.00    627.21      .99       .20      3.56     392.90    100.00
   9200.000  1871.00    628.06      .85       .16      4.40     392.90    100.00
   9200.000  2242.00    629.12     1.06       .15      5.46     392.90    100.00

   9415.000   776.00    623.82      .00       .16       .00      68.11    215.00
   9415.000  1088.00    625.74     1.93       .15      1.93     193.54    215.00
   9415.000  1198.00    626.37      .63       .15      2.56     315.45    215.00
   9415.000  1385.00    627.35      .97       .13      3.53     392.90    215.00
   9415.000  1600.00    628.18      .84       .12      4.37     392.90    215.00
   9415.000  1881.00    629.23     1.05       .11      5.41     392.90    215.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000    776.00    624.12      .00       .30       .00      68.06    515.00
0.000   1088.00    626.03     1.91       .29      1.91      77.08    515.00
0.000   1198.00    626.64      .61       .27      2.52      99.62    515.00
0.000   1385.00    627.58      .93       .23      3.46     186.15    515.00
0.000   1600.00    628.39      .81       .20      4.27     308.10    515.00
0.000   1881.00    629.40     1.02       .17      5.28     308.10    515.00

0.000    776.00    624.28      .00       .16       .00      66.04    290.00
0.000   1088.00    626.18     1.91       .15      1.91      86.47    290.00
0.000   1198.00    626.79      .61       .15      2.52     127.75    290.00
0.000   1385.00    627.72      .93       .14      3.45     173.95    290.00
0.000   1600.00    628.53      .81       .14      4.25     272.49    290.00
0.000   1881.00    629.54     1.01       .14      5.26     318.80    290.00

0.000    776.00    624.32      .00       .04       .00      65.28     80.00
0.000   1088.00    626.23     1.91       .04      1.91      74.24     80.00
0.000   1198.00    626.83      .61       .04      2.51     127.34     80.00
0.000   1385.00    627.76      .93       .03      3.44     129.70     80.00
0.000   1600.00    628.56      .81       .03      4.24     141.70     80.00
0.000   1881.00    629.57     1.00       .03      5.25     141.70     80.00

0.000    776.00    624.37      .00       .06       .00      38.16    100.00
0.000   1088.00    626.28     1.91       .06      1.91     120.00    100.00
0.000   1198.00    626.88      .60       .05      2.51     120.00    100.00
0.000   1385.00    627.80      .92       .05      3.43     120.00    100.00
0.000   1600.00    628.60      .80       .04      4.23     120.00    100.00
0.000   1881.00    629.60     1.00       .03      5.22     120.00    100.00

40.000    776.00    624.44      .00       .06       .00      38.33     40.00
40.000   1088.00    626.34     1.90       .06      1.90     120.00     40.00
40.000   1198.00    626.95      .61       .07      2.52     120.00     40.00
40.000   1385.00    627.89      .93       .08      3.45     120.00     40.00
40.000   1600.00    628.70      .82       .10      4.27     120.00     40.00
40.000   1881.00    629.72     1.02       .12      5.28     120.00     40.00

80.000    776.00    624.51      .00       .07       .00     266.43     40.00
80.000   1088.00    626.40     1.89       .06      1.89     538.60     40.00
80.000   1198.00    627.01      .61       .06      2.50     538.60     40.00
80.000   1385.00    627.94      .93       .05      3.43     538.60     40.00
80.000   1600.00    628.76      .82       .05      4.25     538.60     40.00
80.000   1881.00    629.78     1.02       .06      5.27     538.60     40.00

750.000    776.00    624.59      .00       .08       .00      78.26    270.00
750.000   1088.00    626.46     1.87       .06      1.87     500.42    270.00
750.000   1198.00    627.06      .60       .05      2.47     538.60    270.00
750.000   1385.00    627.98      .92       .05      3.39     538.60    270.00
750.000   1600.00    628.80      .82       .04      4.21     538.60    270.00
750.000   1881.00    629.82     1.02       .04      5.23     538.60    270.00
```

```
     SECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

  11060.000    776.00    624.72      .00       .13       .00      77.52    310.00
  11060.000   1088.00    626.57     1.85       .11      1.85     532.69    310.00
  11060.000   1198.00    627.16      .59       .10      2.44     608.33    310.00
  11060.000   1385.00    628.06      .91       .08      3.34     742.07    310.00
  11060.000   1600.00    628.88      .81       .07      4.15     974.90    310.00
  11060.000   1881.00    629.89     1.01       .07      5.16     974.90    310.00

  11350.000    776.00    624.86      .00       .14       .00      70.07    290.00
  11350.000   1088.00    626.70     1.84       .13      1.84     221.20    290.00
  11350.000   1198.00    627.27      .57       .11      2.41     377.05    290.00
  11350.000   1385.00    628.16      .89       .09      3.30     396.10    290.00
  11350.000   1600.00    628.96      .80       .08      4.10     396.10    290.00
  11350.000   1881.00    629.95     1.00       .07      5.09     396.10    290.00

  11500.000    776.00    624.93      .00       .07       .00      68.53    150.00
  11500.000   1088.00    626.77     1.84       .07      1.84      85.10    150.00
  11500.000   1198.00    627.34      .57       .07      2.41     125.00    150.00
  11500.000   1385.00    628.21      .88       .06      3.28     125.00    150.00
  11500.000   1600.00    629.01      .79       .05      4.08     125.00    150.00
  11500.000   1881.00    630.00      .99       .05      5.07     125.00    150.00

  11600.000    776.00    624.96      .00       .03       .00      73.90    100.00
  11600.000   1088.00    626.80     1.84       .03      1.84     120.00    100.00
  11600.000   1198.00    627.37      .57       .03      2.41     120.00    100.00
  11600.000   1385.00    628.24      .87       .03      3.28     120.00    100.00
  11600.000   1600.00    629.03      .79       .02      4.07     120.00    100.00
  11600.000   1881.00    630.02      .99       .02      5.06     120.00    100.00

  11650.000    776.00    624.96      .00       .00       .00      73.90     50.00
  11650.000   1088.00    626.85     1.89       .05      1.89      98.40     50.00
  11650.000   1198.00    627.43      .58       .06      2.47     120.00     50.00
  11650.000   1385.00    628.30      .87       .06      3.34     120.00     50.00
  11650.000   1600.00    629.10      .80       .07      4.14     120.00     50.00
  11650.000   1881.00    630.10     1.00       .08      5.14     120.00     50.00

  11680.000    776.00    624.96      .00       .00       .00     100.00     30.00
  11680.000   1088.00    626.85     1.89       .00      1.89     100.00     30.00
  11680.000   1198.00    627.43      .58       .00      2.47     100.00     30.00
  11680.000   1385.00    628.30      .87       .00      3.34     100.00     30.00
  11680.000   1600.00    629.10      .80       .00      4.14     100.00     30.00
  11680.000   1881.00    630.10     1.00       .00      5.14     100.00     30.00

  11700.000    776.00    624.96      .00       .00       .00      73.90     20.00
  11700.000   1088.00    626.85     1.89       .00      1.89     100.00     20.00
  11700.000   1198.00    627.43      .58       .00      2.47     100.00     20.00
  11700.000   1385.00    628.30      .87       .00      3.34     100.00     20.00
  11700.000   1600.00    629.10      .80       .00      4.14     100.00     20.00
  11700.000   1881.00    630.10     1.00       .00      5.14     100.00     20.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000     776.00    624.96      .00       .00       .00      73.90    120.00
0.000    1088.00    626.90     1.93       .04      1.93      73.90    120.00
0.000    1198.00    627.49      .59       .06      2.52      73.90    120.00
0.000    1385.00    628.38      .90       .08      3.42      73.90    120.00
0.000    1600.00    629.22      .84       .12      4.25      73.90    120.00
0.000    1881.00    630.27     1.05       .17      5.31      73.90    120.00

50.000    776.00    624.96      .00       .00       .00     134.51     30.00
50.000   1088.00    626.90     1.94       .01      1.94     469.67     30.00
50.000   1198.00    627.50      .59       .01      2.53     732.59     30.00
50.000   1385.00    628.39      .90       .01      3.43     852.20     30.00
50.000   1600.00    629.23      .84       .02      4.27     852.20     30.00
50.000   1881.00    630.29     1.06       .02      5.33     852.20     30.00

75.000    776.00    624.97      .00       .00       .00      74.00     25.00
75.000   1088.00    626.90     1.94       .00      1.94     140.00     25.00
75.000   1198.00    627.50      .59       .00      2.53     140.00     25.00
75.000   1385.00    628.40      .90       .00      3.43     140.00     25.00
75.000   1600.00    629.24      .84       .00      4.27     140.00     25.00
75.000   1881.00    630.30     1.06       .00      5.33     140.00     25.00

25.000    776.00    624.97      .00       .00       .00      74.00     50.00
25.000   1088.00    626.96     1.99       .05      1.99     140.00     50.00
25.000   1198.00    627.56      .60       .06      2.59     140.00     50.00
25.000   1385.00    628.45      .89       .06      3.49     140.00     50.00
25.000   1600.00    629.30      .85       .07      4.34     140.00     50.00
25.000   1881.00    630.38     1.07       .08      5.41     140.00     50.00

75.000    776.00    624.97      .00       .00       .00     109.58     50.00
75.000   1088.00    626.96     1.99       .00      1.99     270.73     50.00
75.000   1198.00    627.56      .60       .00      2.59     389.51     50.00
75.000   1385.00    628.46      .89       .00      3.49     392.80     50.00
75.000   1600.00    629.31      .85       .00      4.34     392.80     50.00
75.000   1881.00    630.38     1.07       .00      5.41     392.80     50.00

02.000    776.00    624.97      .00       .00       .00     109.60     27.00
02.000   1088.00    626.96     1.99       .00      1.99     140.00     27.00
02.000   1198.00    627.56      .60       .00      2.59     140.00     27.00
02.000   1385.00    628.46      .89       .00      3.49     140.00     27.00
02.000   1600.00    629.31      .85       .00      4.34     140.00     27.00
02.000   1881.00    630.38     1.07       .00      5.41     140.00     27.00

080.000   776.00    624.94      .00      -.03       .00      29.30     78.00
080.000  1088.00    626.91     1.98      -.05      1.98      82.99     78.00
080.000  1198.00    627.51      .60      -.05      2.58      90.00     78.00
080.000  1385.00    628.40      .89      -.06      3.46      90.00     78.00
080.000  1600.00    629.24      .84      -.07      4.30      90.00     78.00
080.000  1881.00    630.30     1.06      -.08      5.37      90.00     78.00
```

```
    SECNO        Q        CWSEL    DIFWSP   DIFWSX   DIFKWS   TOPWID    XLCH

  12130.000    776.00    625.07      .00      .14      .00     29.30    50.00
  12130.000   1088.00    627.20     2.12      .28     2.12     90.00    50.00
  12130.000   1198.00    627.75      .55      .23     2.67     90.00    50.00
  12130.000   1385.00    628.58      .84      .18     3.51     90.00    50.00
  12130.000   1600.00    629.40      .82      .16     4.32     90.00    50.00
  12130.000   1881.00    630.43     1.03      .12     5.36     90.00    50.00

  12180.000    776.00    625.08      .00      .00      .00     53.46    50.00
  12180.000   1088.00    627.20     2.12      .00     2.12    513.87    50.00
  12180.000   1198.00    627.75      .55      .00     2.67    550.60    50.00
  12180.000   1385.00    628.59      .84      .00     3.51    550.60    50.00
  12180.000   1600.00    629.40      .82      .01     4.32    550.60    50.00
  12180.000   1881.00    630.44     1.03      .01     5.36    550.60    50.00

  12320.000    776.00    625.10      .00      .02      .00     53.59   140.00
  12320.000   1088.00    627.25     2.15      .05     2.15     90.00   140.00
  12320.000   1198.00    627.82      .56      .07     2.72     90.00   140.00
  12320.000   1385.00    628.67      .86      .09     3.57     90.00   140.00
  12320.000   1600.00    629.51      .84      .11     4.41     90.00   140.00
  12320.000   1881.00    630.57     1.06      .13     5.47     90.00   140.00

  12420.000    776.00    625.14      .00      .04      .00     57.36   100.00
  12420.000   1088.00    627.30     2.15      .04     2.15     73.23   100.00
  12420.000   1198.00    627.86      .56      .04     2.71     74.76   100.00
  12420.000   1385.00    628.70      .85      .03     3.56     77.05   100.00
  12420.000   1600.00    629.54      .83      .03     4.40     85.00   100.00
  12420.000   1881.00    630.59     1.05      .02     5.45     85.00   100.00

  12470.000    776.00    625.28      .00      .13      .00     30.10    50.00
  12470.000   1088.00    627.58     2.30      .28     2.30     74.00    50.00
  12470.000   1198.00    628.15      .57      .29     2.87     75.55    50.00
  12470.000   1385.00    628.99      .84      .28     3.71     85.00    50.00
  12470.000   1600.00    629.81      .82      .27     4.53     85.00    50.00
  12470.000   1881.00    630.85     1.04      .25     5.57     85.00    50.00

  12520.000    776.00    625.31      .00      .04      .00     59.10    50.00
  12520.000   1088.00    627.61     2.30      .03     2.30    467.18    50.00
  12520.000   1198.00    628.18      .57      .03     2.87    502.43    50.00
  12520.000   1385.00    629.03      .85      .04     3.72    548.70    50.00
  12520.000   1600.00    629.87      .83      .05     4.55    548.70    50.00
  12520.000   1881.00    630.91     1.05      .07     5.60    548.70    50.00

  12600.000    776.00    625.35      .00      .04      .00     57.46    80.00
  12600.000   1088.00    627.63     2.28      .02     2.28     73.62    80.00
  12600.000   1198.00    628.20      .57      .02     2.85     75.18    80.00
  12600.000   1385.00    629.05      .84      .01     3.69     81.23    80.00
  12600.000   1600.00    629.87      .83      .01     4.52     85.00    80.00
  12600.000   1881.00    630.91     1.04      .00     5.56     85.00    80.00
```

```
CNO        Q       CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

.000     776.00   625.41      .00       .06       .00     45.41     100.00
.000    1088.00   627.66     2.26       .03      2.26     90.00     100.00
.000    1198.00   628.23      .57       .03      2.83     90.00     100.00
.000    1385.00   629.08      .84       .03      3.67     90.00     100.00
.000    1600.00   629.91      .83       .03      4.50     90.00     100.00
.000    1881.00   630.95     1.04       .04      5.55     90.00     100.00

.000     776.00   625.55      .00       .14       .00     28.00      50.00
.000    1088.00   627.86     2.31       .20      2.31     90.00      50.00
.000    1198.00   628.42      .56       .19      2.87     90.00      50.00
.000    1385.00   629.25      .83       .17      3.70     90.00      50.00
.000    1600.00   630.09      .84       .18      4.54     90.00      50.00
.000    1881.00   631.15     1.06       .20      5.60     90.00      50.00

0.000    776.00   625.61      .00       .06       .00     46.45      50.00
0.000   1088.00   627.88     2.27       .02      2.27    283.40      50.00
0.000   1198.00   628.44      .56       .02      2.83    283.40      50.00
0.000   1385.00   629.27      .83       .03      3.66    283.40      50.00
0.000   1600.00   630.12      .85       .03      4.51    283.40      50.00
0.000   1881.00   631.19     1.07       .04      5.58    283.40      50.00

5.000    776.00   625.62      .00       .01       .00     62.18      45.00
5.000   1088.00   627.89     2.27       .01      2.27    215.51      45.00
5.000   1198.00   628.45      .56       .01      2.83    215.80      45.00
5.000   1385.00   629.28      .83       .01      3.66    215.80      45.00
5.000   1600.00   630.13      .85       .01      4.51    215.80      45.00
5.000   1881.00   631.20     1.07       .01      5.58    215.80      45.00

0.000    776.00   625.73      .00       .11       .00     69.78     275.00
0.000   1088.00   627.98     2.25       .09      2.25    220.27     275.00
0.000   1198.00   628.53      .55       .08      2.80    347.82     275.00
0.000   1385.00   629.35      .82       .07      3.62    391.78     275.00
0.000   1600.00   630.19      .84       .06      4.46    475.65     275.00
0.000   1881.00   631.26     1.06       .06      5.52    478.90     275.00

15.000   776.00   625.75      .00       .02       .00     67.99      95.00
15.000  1088.00   628.00     2.24       .02      2.24     84.92      95.00
15.000  1198.00   628.55      .55       .02      2.79     85.85      95.00
15.000  1385.00   629.37      .82       .02      3.62    100.00      95.00
15.000  1600.00   630.21      .84       .02      4.45    100.00      95.00
15.000  1881.00   631.27     1.06       .01      5.52    100.00      95.00

15.000   776.00   625.78      .00       .02       .00     45.53     100.00
15.000  1088.00   628.02     2.24       .02      2.24     75.00     100.00
15.000  1198.00   628.57      .55       .02      2.79     75.00     100.00
15.000  1385.00   629.39      .82       .02      3.61     75.00     100.00
15.000  1600.00   630.22      .83       .01      4.44     75.00     100.00
15.000  1881.00   631.28     1.06       .01      5.50     75.00     100.00
```

```
    SECNO        Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

  13365.000   776.00    625.98      .00       .20       .00     36.29     50.00
  13365.000  1088.00    628.25     2.27       .23      2.27     75.00     50.00
  13365.000  1198.00    628.79      .54       .22      2.81     75.00     50.00
  13365.000  1385.00    629.60      .82       .22      3.62     75.00     50.00
  13365.000  1600.00    630.43      .83       .21      4.45     75.00     50.00
  13365.000  1881.00    631.51     1.08       .24      5.53     75.00     50.00

  13415.000   776.00    626.05      .00       .07       .00    100.08     50.00
  13415.000  1088.00    628.31     2.26       .06      2.26    808.32     50.00
  13415.000  1198.00    628.86      .55       .07      2.81    859.08     50.00
  13415.000  1385.00    629.68      .83       .08      3.63    863.20     50.00
  13415.000  1600.00    630.53      .84       .09      4.48    863.20     50.00
  13415.000  1881.00    631.62     1.09       .11      5.57    863.20     50.00

  13725.000   776.00    626.30      .00       .25       .00     59.63    310.00
  13725.000  1088.00    628.47     2.17       .16      2.17    285.96    310.00
  13725.000  1198.00    629.00      .53       .15      2.71    291.30    310.00
  13725.000  1385.00    629.82      .82       .14      3.53    291.30    310.00
  13725.000  1600.00    630.66      .84       .13      4.36    291.30    310.00
  13725.000  1881.00    631.74     1.08       .12      5.45    291.30    310.00

  13875.000   776.00    626.37      .00       .08       .00     56.36    150.00
  13875.000  1088.00    628.53     2.16       .06      2.16     75.00    150.00
  13875.000  1198.00    629.07      .53       .06      2.69     75.00    150.00
  13875.000  1385.00    629.88      .82       .06      3.51     75.00    150.00
  13875.000  1600.00    630.72      .84       .06      4.34     75.00    150.00
  13875.000  1881.00    631.80     1.08       .06      5.42     75.00    150.00

  13975.000   776.00    626.43      .00       .05       .00     37.74    100.00
  13975.000  1088.00    628.57     2.15       .04      2.15     80.00    100.00
  13975.000  1198.00    629.11      .53       .04      2.68     80.00    100.00
  13975.000  1385.00    629.92      .82       .04      3.50     80.00    100.00
  13975.000  1600.00    630.76      .84       .04      4.33     80.00    100.00
  13975.000  1881.00    631.84     1.08       .04      5.41     80.00    100.00

  14025.000   776.00    626.61      .00       .18       .00     28.60     50.00
  14025.000  1088.00    628.77     2.16       .19      2.16     80.00     50.00
  14025.000  1198.00    629.30      .53       .19      2.69     80.00     50.00
  14025.000  1385.00    630.11      .81       .18      3.50     80.00     50.00
  14025.000  1600.00    630.95      .84       .19      4.34     80.00     50.00
  14025.000  1881.00    632.05     1.10       .21      5.44     80.00     50.00

  14075.000   776.00    626.67      .00       .06       .00     38.60     50.00
  14075.000  1088.00    628.82     2.15       .05      2.15    334.59     50.00
  14075.000  1198.00    629.36      .54       .06      2.69    529.69     50.00
  14075.000  1385.00    630.18      .82       .07      3.51    636.90     50.00
  14075.000  1600.00    631.03      .85       .08      4.37    636.90     50.00
  14075.000  1881.00    632.15     1.12       .10      5.48    636.90     50.00
```

```
ECNO        Q       CWSEL   DIFWSP   DIFWSX   DIFKWS   TOPWID     XLCH

5.000    776.00    626.80     .00      .13      .00     39.12    130.00
5.000   1088.00    628.92    2.13      .10     2.13     80.00    130.00
5.000   1198.00    629.45     .53      .09     2.65     80.00    130.00
5.000   1385.00    630.26     .81      .08     3.46     80.00    130.00
5.000   1600.00    631.10     .84      .07     4.30     80.00    130.00
5.000   1881.00    632.20    1.10      .05     5.40     80.00    130.00

5.000    776.00    626.90     .00      .10      .00     74.24    100.00
5.000   1088.00    629.02    2.12      .10     2.12     95.00    100.00
5.000   1198.00    629.54     .52      .09     2.64     95.00    100.00
5.000   1385.00    630.35     .80      .09     3.45     95.00    100.00
5.000   1600.00    631.19     .84      .09     4.29     95.00    100.00
5.000   1881.00    632.28    1.10      .09     5.38     95.00    100.00

55.000    776.00    627.13     .00      .23      .00     30.20     50.00
55.000   1088.00    629.21    2.08      .19     2.08     95.00     50.00
55.000   1198.00    629.72     .51      .18     2.59     95.00     50.00
55.000   1385.00    630.52     .80      .17     3.39     95.00     50.00
55.000   1600.00    631.37     .85      .19     4.25     95.00     50.00
55.000   1881.00    632.49    1.11      .20     5.36     95.00     50.00

05.000    776.00    627.17     .00      .05      .00     81.74     50.00
05.000   1088.00    629.24    2.07      .04     2.07    474.60     50.00
05.000   1198.00    629.76     .52      .04     2.59    474.60     50.00
05.000   1385.00    630.57     .81      .05     3.39    474.60     50.00
05.000   1600.00    631.43     .86      .06     4.26    474.60     50.00
05.000   1881.00    632.55    1.12      .07     5.38    474.60     50.00

35.000    776.00    627.26     .00      .08      .00     83.28    130.00
35.000   1088.00    629.30    2.04      .05     2.04     95.00    130.00
35.000   1198.00    629.81     .51      .05     2.55     95.00    130.00
35.000   1385.00    630.61     .80      .04     3.35     95.00    130.00
35.000   1600.00    631.46     .86      .03     4.21     95.00    130.00
35.000   1881.00    632.58    1.11      .02     5.32     95.00    130.00

35.000    776.00    627.32     .00      .06      .00     59.42    100.00
35.000   1088.00    629.34    2.02      .04     2.02     95.00    100.00
35.000   1198.00    629.85     .51      .04     2.53     95.00    100.00
35.000   1385.00    630.64     .80      .04     3.33     95.00    100.00
35.000   1600.00    631.50     .85      .03     4.18     95.00    100.00
35.000   1881.00    632.61    1.11      .03     5.29     95.00    100.00

85.000    776.00    627.51     .00      .19      .00     31.20     50.00
85.000   1088.00    629.68    2.18      .35     2.18     95.00     50.00
85.000   1198.00    630.16     .48      .31     2.65     95.00     50.00
85.000   1385.00    630.92     .76      .28     3.41     95.00     50.00
85.000   1600.00    631.76     .84      .26     4.25     95.00     50.00
85.000   1881.00    632.84    1.08      .23     5.33     95.00     50.00
```

```
       SECNO        Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

     14735.000    776.00    627.56       .00       .05       .00     61.69     50.00
     14735.000   1088.00    629.72      2.16       .04      2.16    542.96     50.00
     14735.000   1198.00    630.20       .48       .04      2.64    719.50     50.00
     14735.000   1385.00    630.97       .77       .05      3.41    719.50     50.00
     14735.000   1600.00    631.82       .85       .06      4.26    719.50     50.00
     14735.000   1881.00    632.91      1.09       .07      5.35    719.50     50.00

     14870.000    776.00    627.65       .00       .08       .00     57.71    135.00
     14870.000   1088.00    629.78      2.13       .06      2.13     92.17    135.00
     14870.000   1198.00    630.26       .48       .05      2.61     95.00    135.00
     14870.000   1385.00    631.02       .76       .05      3.37     95.00    135.00
     14870.000   1600.00    631.86       .84       .04      4.21     95.00    135.00
     14870.000   1881.00    632.94      1.08       .03      5.29     95.00    135.00

     14970.000    776.00    627.72       .00       .07       .00     54.02    100.00
     14970.000   1088.00    629.84      2.12       .06      2.12    100.00    100.00
     14970.000   1198.00    630.31       .47       .06      2.60    100.00    100.00
     14970.000   1385.00    631.07       .76       .05      3.35    100.00    100.00
     14970.000   1600.00    631.91       .84       .05      4.19    100.00    100.00
     14970.000   1881.00    632.98      1.08       .05      5.27    100.00    100.00

     15020.000    776.00    627.92       .00       .20       .00     29.00     50.00
     15020.000   1088.00    630.07      2.15       .23      2.15    100.00     50.00
     15020.000   1198.00    630.54       .47       .22      2.61    100.00     50.00
     15020.000   1385.00    631.28       .74       .20      3.35    100.00     50.00
     15020.000   1600.00    632.10       .83       .20      4.18    100.00     50.00
     15020.000   1881.00    633.19      1.09       .21      5.27    100.00     50.00

     15070.000    598.00    628.01       .00       .09       .00     63.41     50.00
     15070.000    825.00    630.13      2.12       .06      2.12    447.80     50.00
     15070.000    929.00    630.60       .47       .07      2.59    447.80     50.00
     15070.000   1113.00    631.35       .75       .07      3.34    447.80     50.00
     15070.000   1321.00    632.18       .83       .08      4.17    447.80     50.00
     15070.000   1489.00    633.27      1.10       .08      5.27    447.80     50.00

     15160.000    598.00    628.02       .00       .01       .00     61.63     90.00
     15160.000    825.00    630.14      2.12       .01      2.12    376.03     90.00
     15160.000    929.00    630.61       .47       .01      2.59    447.80     90.00
     15160.000   1113.00    631.36       .75       .01      3.34    447.80     90.00
     15160.000   1321.00    632.19       .83       .01      4.17    447.80     90.00
     15160.000   1489.00    633.29      1.09       .01      5.26    447.80     90.00

     15205.000    598.00    628.03       .00       .01       .00     61.68     45.00
     15205.000    825.00    630.14      2.12       .00      2.12    100.00     45.00
     15205.000    929.00    630.61       .47       .00      2.59    100.00     45.00
     15205.000   1113.00    631.36       .74       .00      3.33    100.00     45.00
     15205.000   1321.00    632.19       .83       .00      4.16    100.00     45.00
     15205.000   1489.00    633.28      1.09      -.01      5.25    100.00     45.00
```

```
ECNO       Q       CWSEL   DIFWSP   DIFWSX   DIFKWS   TOPWID    XLCH

5.000    598.00   628.04     .00      .01      .00     44.64   100.00
5.000    825.00   630.16    2.11      .01     2.11     66.11   100.00
5.000    929.00   630.62     .47      .01     2.58     71.10   100.00
5.000   1113.00   631.37     .74      .01     3.33     71.10   100.00
5.000   1321.00   632.20     .83      .01     4.16     71.10   100.00
5.000   1489.00   633.29    1.09      .01     5.24     71.10   100.00

5.000    598.00   628.14     .00      .09      .00     28.40    50.00
5.000    825.00   630.34    2.20      .18     2.20     71.10    50.00
5.000    929.00   630.81     .47      .18     2.67     71.10    50.00
5.000   1113.00   631.57     .76      .20     3.43     71.10    50.00
5.000   1321.00   632.40     .83      .20     4.26     71.10    50.00
5.000   1489.00   633.48    1.08      .19     5.34     71.10    50.00

0.000    598.00   628.16     .00      .03      .00     45.12    35.00
0.000    825.00   630.35    2.19      .01     2.19     71.10    35.00
0.000    929.00   630.82     .47      .01     2.66     71.10    35.00
0.000   1113.00   631.58     .76      .01     3.42     71.10    35.00
0.000   1321.00   632.41     .83      .01     4.25     71.10    35.00
0.000   1489.00   633.49    1.08      .01     5.32     71.10    35.00

0.000    598.00   628.19     .00      .03      .00     54.35    30.00
0.000    825.00   630.38    2.19      .03     2.19    124.70    30.00
0.000    929.00   630.85     .47      .03     2.66    129.38    30.00
0.000   1113.00   631.62     .77      .04     3.43    140.00    30.00
0.000   1321.00   632.46     .84      .05     4.27    140.00    30.00
0.000   1489.00   633.54    1.08      .06     5.35    140.00    30.00

0.000    598.00   628.20     .00      .01      .00     54.35    40.00
0.000    825.00   630.43    2.23      .05     2.23    125.76    40.00
0.000    929.00   630.90     .47      .05     2.70    130.26    40.00
0.000   1113.00   631.68     .78      .06     3.48    140.00    40.00
0.000   1321.00   632.54     .86      .07     4.33    140.00    40.00
0.000   1489.00   633.63    1.09      .08     5.43    140.00    40.00

95.000   598.00   628.21     .00      .00      .00     54.37    35.00
95.000   825.00   630.43    2.23      .00     2.23    125.80    35.00
95.000   929.00   630.91     .47      .00     2.70    130.65    35.00
95.000  1113.00   631.68     .78      .00     3.48    140.00    35.00
95.000  1321.00   632.54     .86      .00     4.33    140.00    35.00
95.000  1489.00   633.63    1.09      .00     5.43    140.00    35.00

30.000   598.00   628.21     .00      .00      .00     45.61    35.00
30.000   825.00   630.43    2.23      .00     2.23    294.17    35.00
30.000   929.00   630.91     .47      .00     2.70    320.00    35.00
30.000  1113.00   631.68     .77     -.01     3.47    320.00    35.00
30.000  1321.00   632.53     .86     -.01     4.33    320.00    35.00
30.000  1489.00   633.63    1.09     -.01     5.42    320.00    35.00
```

```
     SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

   15610.000   598.00    628.21       .00       .00       .00     45.60     80.00
   15610.000   825.00    630.45      2.24       .01      2.24    294.32     80.00
   15610.000   929.00    630.92       .47       .01      2.71    320.00     80.00
   15610.000  1113.00    631.69       .77       .01      3.48    320.00     80.00
   15610.000  1321.00    632.55       .86       .01      4.34    320.00     80.00
   15610.000  1489.00    633.64      1.10       .02      5.43    320.00     80.00

   15650.000   598.00    628.22       .00       .01       .00    153.43     40.00
   15650.000   825.00    630.48      2.26       .03      2.26    378.69     40.00
   15650.000   929.00    630.95       .48       .04      2.73    417.51     40.00
   15650.000  1113.00    631.74       .78       .05      3.52    634.17     40.00
   15650.000  1321.00    632.60       .86       .05      4.38    656.38     40.00
   15650.000  1489.00    633.70      1.09       .05      5.48    669.33     40.00

   16105.000   598.00    628.33       .00       .11       .00    110.46    455.00
   16105.000   825.00    630.54      2.20       .06      2.20    203.48    455.00
   16105.000   929.00    631.01       .47       .06      2.68    218.46    455.00
   16105.000  1113.00    631.79       .78       .05      3.46    234.47    455.00
   16105.000  1321.00    632.65       .86       .04      4.31    236.01    455.00
   16105.000  1489.00    633.73      1.08       .03      5.39    237.95    455.00

   16390.000   598.00    628.40       .00       .07       .00     88.24    285.00
   16390.000   825.00    630.58      2.18       .04      2.18    182.63    285.00
   16390.000   929.00    631.05       .47       .04      2.65    197.71    285.00
   16390.000  1113.00    631.83       .78       .04      3.43    199.08    285.00
   16390.000  1321.00    632.69       .85       .04      4.28    200.58    285.00
   16390.000  1489.00    633.76      1.07       .03      5.36    202.48    285.00

   16555.000   598.00    628.44       .00       .04       .00     84.09    165.00
   16555.000   825.00    630.61      2.17       .03      2.17    154.55    165.00
   16555.000   929.00    631.08       .47       .03      2.64    187.28    165.00
   16555.000  1113.00    631.86       .78       .03      3.42    198.41    165.00
   16555.000  1321.00    632.71       .85       .03      4.27    199.92    165.00
   16555.000  1489.00    633.78      1.07       .02      5.34    201.80    165.00

   16655.000   598.00    628.46       .00       .02       .00     23.75    100.00
   16655.000   825.00    630.62      2.16       .01      2.16    209.50    100.00
   16655.000   929.00    631.10       .48       .02      2.64    210.00    100.00
   16655.000  1113.00    631.88       .78       .02      3.42    210.00    100.00
   16655.000  1321.00    632.73       .85       .02      4.27    210.00    100.00
   16655.000  1489.00    633.79      1.06       .01      5.33    210.00    100.00

   16725.000   598.00    628.57       .00       .10       .00     23.76     70.00
   16725.000   825.00    630.62      2.05       .00      2.05    209.45     70.00
   16725.000   929.00    631.10       .48       .00      2.54    210.00     70.00
   16725.000  1113.00    631.88       .78       .00      3.31    210.00     70.00
   16725.000  1321.00    632.73       .85       .00      4.16    210.00     70.00
   16725.000  1489.00    633.80      1.07       .01      5.23    210.00     70.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

5.000    598.00    628.70      .00       .13       .00     61.34     70.00
5.000    825.00    630.73     2.03       .10      2.03    562.20     70.00
5.000    929.00    631.18      .45       .08      2.48    563.25     70.00
5.000   1113.00    631.93      .76       .05      3.23    565.22     70.00
5.000   1321.00    632.77      .84       .04      4.07    567.52     70.00
5.000   1489.00    633.83     1.06       .03      5.13    570.42     70.00

0.000    598.00    628.73      .00       .03       .00     60.34    115.00
0.000    825.00    630.75     2.01       .02      2.01    561.59    115.00
0.000    929.00    631.20      .45       .02      2.46    562.63    115.00
0.000   1113.00    631.95      .75       .02      3.22    564.49    115.00
0.000   1321.00    632.79      .84       .02      4.06    566.81    115.00
0.000   1489.00    633.84     1.05       .01      5.11    569.70    115.00

5.000    598.00    628.83      .00       .10       .00     73.16    295.00
5.000    825.00    630.81     1.98       .06      1.98   1223.73    295.00
5.000    929.00    631.26      .45       .06      2.43   1225.25    295.00
5.000   1113.00    632.01      .75       .06      3.18   1227.79    295.00
5.000   1321.00    632.84      .83       .05      4.01   1230.61    295.00
5.000   1489.00    633.89     1.04       .04      5.05   1234.14    295.00

5.000    598.00    628.90      .00       .07       .00     81.91    250.00
5.000    825.00    630.86     1.96       .05      1.96    141.51    250.00
5.000    929.00    631.31      .45       .05      2.41    145.68    250.00
5.000   1113.00    632.06      .75       .05      3.16    150.93    250.00
5.000   1321.00    632.89      .83       .04      3.99    153.84    250.00
5.000   1489.00    633.92     1.03       .03      5.02    156.02    250.00

05.000   598.00    628.98      .00       .08       .00     73.80    250.00
05.000   825.00    630.92     1.94       .06      1.94    619.87    250.00
05.000   929.00    631.37      .45       .06      2.39    731.48    250.00
05.000  1113.00    632.12      .75       .06      3.13    768.88    250.00
05.000  1321.00    632.95      .83       .06      3.96    776.30    250.00
05.000  1489.00    633.97     1.02       .05      4.99    779.12    250.00

20.000   598.00    629.11      .00       .13       .00     87.59    315.00
20.000   825.00    631.01     1.90       .10      1.90    174.43    315.00
20.000   929.00    631.46      .45       .10      2.35    455.55    315.00
20.000  1113.00    632.20      .74       .09      3.09    533.71    315.00
20.000  1321.00    633.02      .81       .07      3.90    867.07    315.00
20.000  1489.00    634.02     1.00       .05      4.91   1052.50    315.00

55.000   574.00    629.26      .00       .15       .00     55.46    335.00
55.000   811.00    631.12     1.86       .11      1.86     63.72    335.00
55.000   915.00    631.57      .45       .11      2.31     67.68    335.00
55.000  1097.00    632.30      .73       .10      3.04     76.35    335.00
55.000  1293.00    633.10      .80       .09      3.84    229.54    335.00
55.000  1462.00    634.09      .98       .07      4.82    437.86    335.00
```

```
    SECNO         Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   18585.000    574.00    629.41      .00       .15       .00     53.94    230.00
   18585.000    811.00    631.25     1.84       .13      1.84     62.09    230.00
   18585.000    915.00    631.70      .45       .13      2.29     64.11    230.00
   18585.000   1097.00    632.44      .74       .14      3.03     72.11    230.00
   18585.000   1293.00    633.23      .80       .13      3.82    106.97    230.00
   18585.000   1462.00    634.18      .95       .09      4.77    213.93    230.00

   18685.000    574.00    629.50      .00       .09       .00     37.98    100.00
   18685.000    811.00    631.32     1.82       .07      1.82     54.58    100.00
   18685.000    915.00    631.78      .46       .07      2.28    169.31    100.00
   18685.000   1097.00    632.52      .75       .08      3.03    215.00    100.00
   18685.000   1293.00    633.34      .82       .11      3.84    215.00    100.00
   18685.000   1462.00    634.26      .92       .08      4.76    215.00    100.00

   18735.000    574.00    629.51      .00       .01       .00     38.01     50.00
   18735.000    811.00    631.50     1.99       .18      1.99     42.40     50.00
   18735.000    915.00    631.98      .48       .20      2.47    208.68     50.00
   18735.000   1097.00    632.65      .67       .13      3.14    215.00     50.00
   18735.000   1293.00    633.43      .78       .09      3.93    215.00     50.00
   18735.000   1462.00    634.35      .92       .09      4.84    215.00     50.00

   18785.000    574.00    629.63      .00       .13       .00     41.32     50.00
   18785.000    811.00    631.65     2.02       .15      2.02    907.30     50.00
   18785.000    915.00    632.11      .46       .13      2.48    907.30     50.00
   18785.000   1097.00    632.75      .64       .10      3.11    907.30     50.00
   18785.000   1293.00    633.50      .76       .07      3.87    907.30     50.00
   18785.000   1462.00    634.40      .90       .05      4.77    907.30     50.00

   19000.000    574.00    629.84      .00       .21       .00     75.08    215.00
   19000.000    811.00    631.74     1.90       .09      1.90    150.30    215.00
   19000.000    915.00    632.19      .45       .08      2.34    295.68    215.00
   19000.000   1097.00    632.81      .62       .06      2.97    483.26    215.00
   19000.000   1293.00    633.55      .74       .05      3.71    575.30    215.00
   19000.000   1462.00    634.44      .88       .03      4.59    575.30    215.00

   19335.000    574.00    630.09      .00       .25       .00     59.93    335.00
   19335.000    811.00    631.93     1.84       .19      1.84     68.90    335.00
   19335.000    915.00    632.38      .45       .19      2.28     71.08    335.00
   19335.000   1097.00    632.99      .61       .18      2.90    337.21    335.00
   19335.000   1293.00    633.70      .71       .14      3.60    495.44    335.00
   19335.000   1462.00    634.53      .84       .10      4.44    666.80    335.00

   19625.000    574.00    630.41      .00       .32       .00     56.95    290.00
   19625.000    811.00    632.16     1.76       .23      1.76     71.36    290.00
   19625.000    915.00    632.61      .45       .24      2.20     85.48    290.00
   19625.000   1097.00    633.23      .61       .24      2.82    185.18    290.00
   19625.000   1293.00    633.89      .66       .19      3.48    365.57    290.00
   19625.000   1462.00    634.66      .77       .13      4.25    496.20    290.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

5.000    574.00    630.83      .00       .42       .00      86.91    520.00
5.000    811.00    632.51     1.67       .34      1.67     161.11    520.00
5.000    915.00    633.00      .49       .38      2.16     216.95    520.00
5.000   1097.00    633.63      .63       .40      2.80     230.95    520.00
5.000   1293.00    634.27      .64       .38      3.43     300.40    520.00
5.000   1462.00    634.96      .69       .29      4.12     323.24    520.00

6.000    574.00    630.74      .00      -.09       .00     285.33      1.00
6.000    811.00    632.43     1.69      -.07      1.69     444.19      1.00
6.000    915.00    632.94      .50      -.06      2.19     471.28      1.00
6.000   1097.00    633.57      .63      -.06      2.83     488.50      1.00
6.000   1293.00    634.21      .64      -.05      3.47     505.94      1.00
6.000   1462.00    634.91      .70      -.05      4.17     524.82      1.00

5.000    574.00    631.20      .00       .46       .00      52.48    109.00
5.000    811.00    632.85     1.65       .42      1.65      95.16    109.00
5.000    915.00    633.32      .47       .38      2.12     100.13    109.00
5.000   1097.00    633.91      .59       .34      2.71     106.48    109.00
5.000   1293.00    634.51      .60       .30      3.31     112.98    109.00
5.000   1462.00    635.15      .64       .24      3.95     119.90    109.00

5.000    574.00    631.40      .00       .20       .00     100.95    100.00
5.000    811.00    633.02     1.62       .17      1.62     110.51    100.00
5.000    915.00    633.48      .46       .16      2.08     111.63    100.00
5.000   1097.00    634.07      .59       .16      2.67     112.89    100.00
5.000   1293.00    634.68      .61       .17      3.28     113.80    100.00
5.000   1462.00    635.31      .63       .15      3.91     113.80    100.00

5.000    574.00    631.40      .00       .00       .00     100.98     80.00
5.000    811.00    633.02     1.62       .00      1.62     110.52     80.00
5.000    915.00    633.48      .46       .00      2.08     111.64     80.00
5.000   1097.00    634.07      .59       .00      2.68     112.90     80.00
5.000   1293.00    634.71      .63       .03      3.31     113.80     80.00
5.000   1462.00    635.35      .64       .04      3.95     113.80     80.00

15.000    574.00    631.42      .00       .02       .00      94.74     80.00
15.000    811.00    633.04     1.62       .02      1.62     109.56     80.00
15.000    915.00    633.50      .46       .02      2.08     110.71     80.00
15.000   1097.00    634.09      .60       .02      2.68     121.74     80.00
15.000   1293.00    634.73      .63       .02      3.31     144.01     80.00
15.000   1462.00    635.37      .64       .02      3.96     289.75     80.00

95.000    574.00    631.43      .00       .02       .00      73.22     80.00
95.000    811.00    633.05     1.62       .01      1.62      84.30     80.00
95.000    915.00    633.51      .46       .01      2.08      88.70     80.00
95.000   1097.00    634.11      .60       .01      2.68      88.78     80.00
95.000   1293.00    634.74      .63       .01      3.31      88.86     80.00
95.000   1462.00    635.38      .64       .01      3.95     169.70     80.00
```

```
    SECNO        Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

  20645.000    574.00     631.47      .00       .04       .00      73.66     50.00
  20645.000    811.00     633.08     1.61       .03      1.61      84.30     50.00
  20645.000    915.00     633.61      .53       .10      2.13      84.30     50.00
  20645.000   1097.00     634.27      .66       .16      2.79      84.30     50.00
  20645.000   1293.00     634.98      .72       .24      3.51      84.30     50.00
  20645.000   1462.00     635.66      .68       .28      4.19     215.33     50.00

  20695.000    574.00     631.56      .00       .09       .00      86.63     50.00
  20695.000    811.00     633.15     1.59       .07      1.59     247.94     50.00
  20695.000    915.00     633.68      .53       .07      2.12     358.81     50.00
  20695.000   1097.00     634.34      .67       .08      2.78     436.81     50.00
  20695.000   1293.00     635.07      .73       .09      3.51     439.34     50.00
  20695.000   1462.00     635.76      .68       .10      4.20     498.61     50.00

  20830.000    554.00     631.53      .00      -.03       .00      40.38    135.00
  20830.000    774.00     633.12     1.59      -.03      1.59      45.74    135.00
  20830.000    872.00     633.64      .52      -.03      2.11      47.51    135.00
  20830.000   1048.00     634.29      .65      -.06      2.76      49.69    135.00
  20830.000   1257.00     634.98      .69      -.09      3.45      52.03    135.00
  20830.000   1421.00     635.64      .66      -.12      4.11      54.25    135.00

  21065.000    554.00     632.23      .00       .70       .00     190.49    235.00
  21065.000    774.00     633.54     1.31       .42      1.31     242.52    235.00
  21065.000    872.00     634.03      .49       .39      1.79     289.67    235.00
  21065.000   1048.00     634.68      .65       .39      2.44     366.17    235.00
  21065.000   1257.00     635.38      .70       .40      3.15     395.51    235.00
  21065.000   1421.00     636.03      .65       .39      3.79     405.77    235.00

  21580.000    552.00     632.52      .00       .28       .00     212.72    515.00
  21580.000    773.00     633.66     1.15       .12      1.15     243.13    515.00
  21580.000    881.00     634.13      .46       .10      1.61     308.22    515.00
  21580.000   1056.00     634.75      .63       .07      2.24     373.58    515.00
  21580.000   1254.00     635.44      .69       .06      2.92     404.08    515.00
  21580.000   1417.00     636.07      .63       .04      3.55     405.58    515.00

  21885.000    552.00     632.69      .00       .18       .00     101.28    305.00
  21885.000    773.00     633.75     1.06       .09      1.06     111.12    305.00
  21885.000    881.00     634.19      .44       .06      1.50     116.10    305.00
  21885.000   1056.00     634.80      .61       .04      2.10     221.25    305.00
  21885.000   1254.00     635.47      .67       .03      2.78     365.54    305.00
  21885.000   1417.00     636.09      .63       .02      3.40     459.20    305.00

  21995.000    552.00     632.81      .00       .12       .00     101.52    110.00
  21995.000    773.00     633.83     1.02       .08      1.02     110.99    110.00
  21995.000    881.00     634.26      .43       .07      1.45     115.66    110.00
  21995.000   1056.00     634.86      .60       .06      2.04     208.23    110.00
  21995.000   1254.00     635.52      .66       .05      2.70     356.17    110.00
  21995.000   1417.00     636.13      .61       .03      3.32     448.33    110.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

5.000    552.00    632.96      .00       .15       .00     66.28     100.00
5.000    773.00    633.93      .97       .10       .97     70.26     100.00
5.000    881.00    634.35      .42       .09      1.39     71.94     100.00
5.000   1056.00    634.93      .58       .08      1.97     74.31     100.00
5.000   1254.00    635.56      .63       .05      2.60     76.94     100.00
5.000   1417.00    636.14      .58       .02      3.18     79.35     100.00

5.000    552.00    632.98      .00       .02       .00     66.35      40.00
5.000    773.00    633.95      .97       .02       .97     70.34      40.00
5.000    881.00    634.37      .42       .02      1.39     72.05      40.00
5.000   1056.00    634.96      .58       .02      1.98     74.44      40.00
5.000   1254.00    635.59      .63       .02      2.61     77.03      40.00
5.000   1417.00    636.17      .58       .02      3.19     79.41      40.00

5.000    552.00    633.11      .00       .13       .00     67.68      40.00
5.000    773.00    634.07      .96       .12       .96     71.62      40.00
5.000    881.00    634.49      .42       .12      1.38     73.32      40.00
5.000   1056.00    635.07      .58       .12      1.96     75.71      40.00
5.000   1254.00    635.70      .63       .12      2.59     78.29      40.00
5.000   1417.00    636.28      .58       .11      3.17     80.64      40.00

5.000    552.00    633.47      .00       .36       .00     51.64     210.00
5.000    773.00    634.45      .98       .38       .98     55.53     210.00
5.000    881.00    634.87      .42       .39      1.41     57.15     210.00
5.000   1056.00    635.48      .60       .40      2.01     59.46     210.00
5.000   1254.00    636.12      .64       .41      2.65     61.92     210.00
5.000   1417.00    636.68      .56       .40      3.21     65.71     210.00

5.000    552.00    633.80      .00       .33       .00     54.38     330.00
5.000    773.00    634.85     1.05       .40      1.05    141.49     330.00
5.000    881.00    635.30      .45       .43      1.50    211.82     330.00
5.000   1056.00    635.95      .65       .47      2.15    253.09     330.00
5.000   1254.00    636.63      .68       .51      2.84    268.93     330.00
5.000   1417.00    637.21      .57       .52      3.41    310.49     330.00

05.000    552.00    634.15      .00       .35       .00     97.33     390.00
05.000    773.00    635.27     1.12       .42      1.12    110.80     390.00
05.000    881.00    635.75      .48       .45      1.60    116.58     390.00
05.000   1056.00    636.44      .68       .49      2.28    141.17     390.00
05.000   1254.00    637.14      .71       .51      2.99    145.58     390.00
05.000   1417.00    637.72      .58       .52      3.57    257.53     390.00

60.000    552.00    634.37      .00       .21       .00    218.08     255.00
60.000    773.00    635.52     1.15       .25      1.15    235.69     255.00
60.000    881.00    636.01      .49       .26      1.65    243.98     255.00
60.000   1056.00    636.72      .70       .28      2.35    286.91     255.00
60.000   1254.00    637.44      .73       .30      3.08    295.73     255.00
60.000   1417.00    638.04      .59       .31      3.67    301.51     255.00
```

```
   SECNO         Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

 23660.000    552.00    634.52      .00       .15       .00      73.40    300.00
 23660.000    773.00    635.68     1.17       .16      1.17      84.34    300.00
 23660.000    881.00    636.18      .50       .16      1.66      93.75    300.00
 23660.000   1056.00    636.89      .71       .17      2.37     111.16    300.00
 23660.000   1254.00    637.62      .73       .17      3.10     217.01    300.00
 23660.000   1417.00    638.21      .59       .17      3.69     436.85    300.00

 23995.000    552.00    634.73      .00       .21       .00      86.44    335.00
 23995.000    773.00    635.91     1.18       .23      1.18      96.97    335.00
 23995.000    881.00    636.40      .50       .23      1.67     100.21    335.00
 23995.000   1056.00    637.12      .71       .23      2.39     170.42    335.00
 23995.000   1254.00    637.85      .73       .23      3.12     251.50    335.00
 23995.000   1417.00    638.44      .59       .23      3.71     303.11    335.00

 24185.000    378.00    634.86      .00       .13       .00      78.30    190.00
 24185.000    527.00    636.05     1.18       .14      1.18    1437.75    190.00
 24185.000    597.00    636.54      .50       .14      1.68    1534.83    190.00
 24185.000    746.00    637.26      .71       .14      2.40    1553.94    190.00
 24185.000    878.00    638.00      .74       .14      3.13    1588.52    190.00
 24185.000   1032.00    638.59      .59       .15      3.72    1618.20    190.00

 24320.000    378.00    634.97      .00       .11       .00      73.14    135.00
 24320.000    527.00    636.11     1.14       .06      1.14    1235.54    135.00
 24320.000    597.00    636.58      .47       .04      1.61    1509.13    135.00
 24320.000    746.00    637.28      .70       .02      2.31    1549.34    135.00
 24320.000    878.00    638.01      .73       .02      3.04    1574.99    135.00
 24320.000   1032.00    638.60      .59       .01      3.63    1618.19    135.00

 24420.000    378.00    635.04      .00       .07       .00      54.00    100.00
 24420.000    527.00    636.13     1.09       .02      1.09      54.00    100.00
 24420.000    597.00    636.58      .45       .00      1.54      54.00    100.00
 24420.000    746.00    637.27      .69      -.01      2.24     300.00    100.00
 24420.000    878.00    638.00      .73      -.01      2.97     300.00    100.00
 24420.000   1032.00    638.59      .59      -.01      3.56     300.00    100.00

 24550.000    378.00    635.06      .00       .02       .00      54.00    130.00
 24550.000    527.00    636.19     1.13       .06      1.13      54.00    130.00
 24550.000    597.00    636.65      .47       .08      1.60      54.00    130.00
 24550.000    746.00    637.41      .75       .13      2.35     181.80    130.00
 24550.000    878.00    638.10      .69       .09      3.04     300.00    130.00
 24550.000   1032.00    638.67      .58       .08      3.61     300.00    130.00

 24685.000    378.00    635.11      .00       .05       .00      32.78    135.00
 24685.000    527.00    636.24     1.13       .05      1.13     103.59    135.00
 24685.000    597.00    636.71      .47       .06      1.60     328.90    135.00
 24685.000    746.00    637.47      .76       .06      2.36     442.45    135.00
 24685.000    878.00    638.12      .65       .02      3.01     511.30    135.00
 24685.000   1032.00    638.69      .57       .02      3.58     511.30    135.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

5.000     378.00    635.44      .00       .33       .00   1179.31    170.00
5.000     527.00    636.53     1.09       .29      1.09   1768.99    170.00
5.000     597.00    636.96      .43       .25      1.52   1940.48    170.00
5.000     746.00    637.66      .70       .19      2.21   1957.20    170.00
5.000     878.00    638.27      .61       .14      2.82   1957.20    170.00
5.000    1032.00    638.82      .55       .13      3.38   1957.20    170.00

5.000     378.00    635.60      .00       .16       .00   1926.74    240.00
5.000     527.00    636.63     1.03       .10      1.03   3118.83    240.00
5.000     597.00    637.04      .41       .08      1.44   3178.73    240.00
5.000     746.00    637.73      .69       .07      2.13   3278.33    240.00
5.000     878.00    638.33      .60       .06      2.73   3317.60    240.00
5.000    1032.00    638.88      .55       .06      3.27   3317.60    240.00

5.000     378.00    635.69      .00       .09       .00   1996.84    220.00
5.000     527.00    636.70     1.01       .07      1.01   3382.48    220.00
5.000     597.00    637.11      .41       .06      1.41   3435.41    220.00
5.000     746.00    637.79      .68       .06      2.10   3524.15    220.00
5.000     878.00    638.38      .60       .06      2.69   3551.50    220.00
5.000    1032.00    638.93      .55       .06      3.24   3551.50    220.00

5.000     378.00    635.70      .00       .01       .00    764.79    230.00
5.000     527.00    636.68      .98      -.02       .98   1214.69    230.00
5.000     597.00    637.08      .40      -.02      1.38   1363.30    230.00
5.000     746.00    637.76      .68      -.03      2.06   1628.04    230.00
5.000     878.00    638.36      .59      -.03      2.65   1700.40    230.00
5.000    1032.00    638.90      .55      -.03      3.20   1700.40    230.00

)5.000     378.00    635.92      .00       .22       .00    780.32     60.00
)5.000     527.00    636.91      .99       .23       .99   1224.67     60.00
)5.000     597.00    637.31      .40       .23      1.40   1377.79     60.00
)5.000     746.00    638.00      .68       .23      2.08   1638.47     60.00
)5.000     878.00    638.58      .59       .23      2.67   1700.40     60.00
)5.000    1032.00    639.14      .55       .23      3.22   1700.40     60.00

)5.000     378.00    635.94      .00       .02       .00     40.55    100.00
)5.000     527.00    636.90      .96      -.01       .96     70.00    100.00
)5.000     597.00    637.29      .40      -.02      1.35     70.00    100.00
)5.000     746.00    637.97      .67      -.03      2.03     70.00    100.00
)5.000     878.00    638.55      .58      -.03      2.61     70.00    100.00
)5.000    1032.00    639.10      .55      -.04      3.16     70.00    100.00

35.000     378.00    636.03      .00       .09       .00     31.90     80.00
35.000     527.00    637.07     1.04       .17      1.04     70.00     80.00
35.000     597.00    637.47      .39       .17      1.44     70.00     80.00
35.000     746.00    638.15      .68       .18      2.12     70.00     80.00
35.000     878.00    638.74      .59       .19      2.71     70.00     80.00
35.000    1032.00    639.30      .56       .20      3.26     70.00     80.00
```

```
   SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

 25865.000    378.00    636.02       .00      -.01       .00   1046.16     80.00
 25865.000    527.00    637.06      1.04      -.01      1.04   1965.20     80.00
 25865.000    597.00    637.46       .40      -.01      1.44   2107.54     80.00
 25865.000    746.00    638.15       .69       .00      2.13   2453.38     80.00
 25865.000    878.00    638.75       .60       .01      2.73   2622.95     80.00
 25865.000   1032.00    639.31       .56       .01      3.29   2709.79     80.00

 25910.000    345.00    636.16       .00       .13       .00   1109.04     45.00
 25910.000    474.00    637.22      1.06       .16      1.06   1985.12     45.00
 25910.000    543.00    637.61       .39       .15      1.46   2125.57     45.00
 25910.000    692.00    638.30       .69       .15      2.14   2475.81     45.00
 25910.000    824.00    638.89       .59       .14      2.73   2627.88     45.00
 25910.000    978.00    639.45       .56       .14      3.29   2714.29     45.00

 26130.000    345.00    636.27       .00       .11       .00   1091.44    220.00
 26130.000    474.00    637.17       .91      -.04       .91   2020.31    220.00
 26130.000    543.00    637.56       .38      -.06      1.29   2520.46    220.00
 26130.000    692.00    638.23       .67      -.07      1.96   2825.00    220.00
 26130.000    824.00    638.81       .58      -.08      2.54   2825.00    220.00
 26130.000    978.00    639.37       .56      -.08      3.10   2825.00    220.00

 26340.000    345.00    636.40       .00       .13       .00    535.33    210.00
 26340.000    474.00    637.31       .91       .14       .91   1105.45    210.00
 26340.000    543.00    637.69       .38       .14      1.30   1288.94    210.00
 26340.000    692.00    638.37       .67       .14      1.97   1447.99    210.00
 26340.000    824.00    638.94       .58       .13      2.55   1449.00    210.00
 26340.000    978.00    639.50       .55       .13      3.10   1449.00    210.00

 26430.000    345.00    636.44       .00       .04       .00    411.53     90.00
 26430.000    474.00    637.37       .93       .06       .93   1245.23     90.00
 26430.000    543.00    637.77       .40       .08      1.33   1744.45     90.00
 26430.000    692.00    638.47       .70       .10      2.03   2067.90     90.00
 26430.000    824.00    639.07       .60       .13      2.63   2067.90     90.00
 26430.000    978.00    639.64       .58       .15      3.20   2067.90     90.00

 26550.000    345.00    636.66       .00       .23       .00    283.65    120.00
 26550.000    474.00    637.56       .89       .19       .89    743.80    120.00
 26550.000    543.00    637.94       .38       .17      1.27    926.86    120.00
 26550.000    692.00    638.60       .66       .13      1.94   1022.10    120.00
 26550.000    824.00    639.17       .57       .10      2.50   1022.10    120.00
 26550.000    978.00    639.73       .56       .08      3.06   1022.10    120.00

 26685.000    345.00    636.73       .00       .06       .00    869.74    135.00
 26685.000    474.00    637.66       .93       .10       .93   1336.69    135.00
 26685.000    543.00    638.05       .39       .11      1.32   1588.35    135.00
 26685.000    692.00    638.73       .68       .13      2.00   1625.10    135.00
 26685.000    824.00    639.30       .57       .13      2.57   1625.10    135.00
 26685.000    978.00    639.87       .57       .14      3.14   1625.10    135.00
```

```
ECNO       Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

5.000    345.00     637.10      .00       .37       .00     374.08    250.00
5.000    474.00     637.88      .77       .22       .77     781.19    250.00
5.000    543.00     638.23      .36       .18      1.13     934.03    250.00
5.000    692.00     638.88      .65       .15      1.78    1208.12    250.00
5.000    824.00     639.43      .55       .13      2.33    1445.74    250.00
5.000    978.00     639.99      .55       .12      2.88    1686.26    250.00

05.000   345.00     637.29      .00       .18       .00     680.54    170.00
05.000   474.00     638.03      .75       .16       .75    1493.95    170.00
05.000   543.00     638.37      .34       .14      1.09    1738.78    170.00
05.000   692.00     639.00      .63       .12      1.72    2193.90    170.00
05.000   824.00     639.54      .54       .11      2.25    2505.51    170.00
05.000   978.00     640.08      .54       .10      2.80    2776.90    170.00

15.000   345.00     637.40      .00       .11       .00     682.35    110.00
15.000   474.00     638.15      .76       .12       .76    1210.35    110.00
15.000   543.00     638.49      .34       .11      1.09    1424.81    110.00
15.000   692.00     639.10      .62       .10      1.71    1814.35    110.00
15.000   824.00     639.63      .52       .09      2.23    2146.59    110.00
15.000   978.00     640.16      .53       .08      2.77    2385.60    110.00

30.000   345.00     637.54      .00       .14       .00     921.45    165.00
30.000   474.00     638.27      .74       .12       .74    1393.18    165.00
30.000   543.00     638.60      .33       .11      1.06    1565.39    165.00
30.000   692.00     639.20      .60       .10      1.67    1877.49    165.00
30.000   824.00     639.72      .51       .09      2.18    2143.17    165.00
30.000   978.00     640.25      .53       .09      2.71    2236.70    165.00

55.000   345.00     637.58      .00       .04       .00    1369.79     75.00
55.000   474.00     638.31      .73       .04       .73    1906.54     75.00
55.000   543.00     638.63      .32       .03      1.05    2058.68     75.00
55.000   692.00     639.24      .60       .03      1.65    2169.86     75.00
55.000   824.00     639.75      .51       .03      2.17    2264.48     75.00
55.000   978.00     640.27      .53       .03      2.69    2310.30     75.00

95.000   345.00     637.72      .00       .14       .00      48.50    240.00
95.000   474.00     638.43      .71       .12       .71     266.80    240.00
95.000   543.00     638.75      .32       .11      1.02     328.42    240.00
95.000   692.00     639.34      .59       .10      1.62     337.60    240.00
95.000   824.00     639.84      .50       .10      2.12     337.60    240.00
95.000   978.00     640.36      .52       .09      2.64     337.60    240.00

45.000   345.00     638.13      .00       .41       .00     686.06    450.00
45.000   474.00     638.86      .73       .43       .73    1369.71    450.00
45.000   543.00     639.18      .32       .43      1.05    1667.76    450.00
45.000   692.00     639.77      .59       .43      1.64    2219.23    450.00
145.000  824.00     640.26      .49       .42      2.12    2434.40    450.00
145.000  978.00     640.77      .51       .40      2.63    2434.40    450.00
```

```
   SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

 28190.000   345.00    638.17      .00       .04       .00     478.86     45.00
 28190.000   474.00    638.94      .76       .07       .76    1248.86     45.00
 28190.000   543.00    639.25      .32       .07      1.08    1547.07     45.00
 28190.000   692.00    639.84      .59       .07      1.67    2096.83     45.00
 28190.000   824.00    640.32      .48       .07      2.15    2434.40     45.00
 28190.000   978.00    640.83      .51       .06      2.66    2434.40     45.00

 28290.000   345.00    638.25      .00       .08       .00      76.77    100.00
 28290.000   474.00    638.95      .70       .01       .70     135.01    100.00
 28290.000   543.00    639.26      .31       .00      1.01     135.15    100.00
 28290.000   692.00    639.83      .58      -.01      1.59     140.00    100.00
 28290.000   824.00    640.31      .48      -.01      2.07     140.00    100.00
 28290.000   978.00    640.82      .50      -.01      2.57     140.00    100.00

 28340.000   345.00    638.31      .00       .06       .00      85.63     50.00
 28340.000   474.00    639.05      .74       .10       .74     135.06     50.00
 28340.000   543.00    639.35      .30       .10      1.05     136.95     50.00
 28340.000   692.00    639.93      .57       .09      1.62     140.00     50.00
 28340.000   824.00    640.41      .48       .09      2.10     140.00     50.00
 28340.000   978.00    640.92      .51       .10      2.61     140.00     50.00

 28390.000   345.00    638.33      .00       .02       .00     208.00     50.00
 28390.000   474.00    639.08      .75       .03       .75     208.00     50.00
 28390.000   543.00    639.38      .31       .03      1.05     208.00     50.00
 28390.000   692.00    639.96      .58       .03      1.63     208.00     50.00
 28390.000   824.00    640.44      .48       .03      2.11     208.00     50.00
 28390.000   978.00    640.96      .52       .04      2.63     208.00     50.00

 28585.000   345.00    638.34      .00       .01       .00     208.00    195.00
 28585.000   474.00    639.08      .75       .01       .75     208.00    195.00
 28585.000   543.00    639.39      .31       .01      1.05     208.00    195.00
 28585.000   692.00    639.97      .58       .01      1.63     208.00    195.00
 28585.000   824.00    640.45      .48       .01      2.11     208.00    195.00
 28585.000   978.00    640.97      .52       .01      2.63     208.00    195.00

 28825.000   345.00    638.34      .00       .01       .00     206.21    240.00
 28825.000   474.00    639.09      .75       .01       .75     502.22    240.00
 28825.000   543.00    639.40      .31       .01      1.06     570.39    240.00
 28825.000   692.00    639.99      .58       .02      1.64     602.30    240.00
 28825.000   824.00    640.47      .49       .02      2.13     602.30    240.00
 28825.000   978.00    640.99      .52       .03      2.65     602.30    240.00

 29100.000   345.00    638.66      .00       .32       .00      46.16    275.00
 29100.000   474.00    639.35      .69       .26       .69     426.08    275.00
 29100.000   543.00    639.63      .27       .22       .96     486.80    275.00
 29100.000   692.00    640.15      .52       .16      1.49     597.29    275.00
 29100.000   824.00    640.59      .44       .12      1.93     602.30    275.00
 29100.000   978.00    641.08      .49       .09      2.42     602.30    275.00
```

```
ECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000     345.00   638.78      .00       .11       .00      89.10    100.00
0.000     474.00   639.44      .67       .09       .67      94.18    100.00
0.000     543.00   639.69      .25       .06       .91      95.00    100.00
0.000     692.00   640.19      .50       .04      1.41      95.00    100.00
0.000     824.00   640.61      .43       .02      1.84      95.00    100.00
0.000     978.00   641.09      .48       .01      2.31      95.00    100.00

0.000     345.00   638.84      .00       .07       .00      92.91     50.00
0.000     474.00   639.56      .72       .12       .72      95.00     50.00
0.000     543.00   639.82      .25       .13       .97      95.00     50.00
0.000     692.00   640.33      .51       .14      1.48      95.00     50.00
0.000     824.00   640.76      .44       .15      1.92      95.00     50.00
0.000     978.00   641.25      .49       .16      2.41      95.00     50.00

0.000     345.00   638.86      .00       .02       .00     825.38     50.00
0.000     474.00   639.58      .72       .02       .72    1636.24     50.00
0.000     543.00   639.84      .26       .02       .98    1797.40     50.00
0.000     692.00   640.36      .52       .03      1.50    1797.40     50.00
0.000     824.00   640.81      .44       .04      1.95    1797.40     50.00
0.000     978.00   641.30      .50       .05      2.44    1797.40     50.00

50.000    345.00   638.93      .00       .07       .00     609.31    250.00
50.000    474.00   639.64      .71       .06       .71    1020.94    250.00
50.000    543.00   639.89      .26       .05       .97    1377.41    250.00
50.000    692.00   640.41      .52       .05      1.48    1797.40    250.00
50.000    824.00   640.85      .44       .05      1.93    1797.40    250.00
50.000    978.00   641.35      .49       .05      2.42    1797.40    250.00

55.000    345.00   638.91      .00      -.02       .00     611.62      5.00
55.000    474.00   639.61      .70      -.03       .70    1033.71      5.00
55.000    543.00   639.86      .25      -.04       .95    1522.38      5.00
55.000    692.00   640.37      .51      -.04      1.46    1797.40      5.00
55.000    824.00   640.81      .44      -.05      1.90    1797.40      5.00
55.000    978.00   641.29      .49      -.05      2.39    1797.40      5.00

60.000    322.00   638.93      .00       .02       .00      40.19    205.00
60.000    426.00   639.63      .70       .02       .70      40.43    205.00
60.000    492.00   639.88      .25       .02       .94      40.51    205.00
60.000    714.00   640.37      .49       .00      1.43      40.68    205.00
60.000    914.00   640.78      .41      -.03      1.85      40.82    205.00
60.000   1119.00   641.24      .46      -.05      2.31      40.98    205.00

00.000    322.00   638.93      .00       .00       .00      40.19     40.00
00.000    426.00   639.63      .70       .00       .70      40.43     40.00
00.000    492.00   639.88      .25       .00       .95      40.51     40.00
00.000    714.00   640.37      .49       .00      1.44      40.68     40.00
00.000    914.00   640.78      .41       .01      1.85      40.82     40.00
00.000   1119.00   641.25      .46       .01      2.31      40.98     40.00
```

```
     SECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   29900.000   322.00    638.94      .00       .01       .00      31.90    100.00
   29900.000   426.00    639.64      .70       .02       .70      41.53    100.00
   29900.000   492.00    639.90      .25       .02       .95      42.72    100.00
   29900.000   714.00    640.40      .50       .03      1.45     126.22    100.00
   29900.000   914.00    640.83      .43       .05      1.88     281.06    100.00
   29900.000  1119.00    641.33      .50       .09      2.39     310.60    100.00

   30060.000   322.00    638.99      .00       .05       .00      31.90    160.00
   30060.000   426.00    639.74      .75       .10       .75      31.90    160.00
   30060.000   492.00    640.03      .29       .13      1.03      31.90    160.00
   30060.000   714.00    640.57      .54       .17      1.58     183.40    160.00
   30060.000   914.00    640.88      .31       .05      1.89     289.85    160.00
   30060.000  1119.00    641.33      .45       .00      2.34     310.60    160.00

   30225.000   322.00    639.01      .00       .01       .00      40.44    165.00
   30225.000   426.00    639.76      .75       .02       .75      41.34    165.00
   30225.000   492.00    640.05      .29       .02      1.05      42.53    165.00
   30225.000   714.00    640.61      .55       .03      1.60     128.33    165.00
   30225.000   914.00    640.95      .34       .07      1.94     267.29    165.00
   30225.000  1119.00    641.45      .50       .12      2.45     310.60    165.00

   30325.000   322.00    639.02      .00       .01       .00      51.68    100.00
   30325.000   426.00    639.78      .76       .02       .76     103.13    100.00
   30325.000   492.00    640.07      .30       .02      1.05     153.91    100.00
   30325.000   714.00    640.65      .57       .04      1.63     213.46    100.00
   30325.000   914.00    641.00      .35       .05      1.98     353.23    100.00
   30325.000  1119.00    641.49      .49       .03      2.47     381.14    100.00

   30375.000   322.00    639.06      .00       .04       .00      49.90     50.00
   30375.000   426.00    639.85      .79       .08       .79     141.56     50.00
   30375.000   492.00    640.15      .30       .08      1.09     158.08     50.00
   30375.000   714.00    640.74      .59       .09      1.68     264.70     50.00
   30375.000   914.00    641.07      .34       .08      2.01     357.78     50.00
   30375.000  1119.00    641.54      .47       .05      2.48     386.90     50.00

   30425.000   322.00    639.08      .00       .02       .00     458.91     50.00
   30425.000   426.00    639.89      .81       .03       .81     642.26     50.00
   30425.000   492.00    640.19      .30       .04      1.11     710.19     50.00
   30425.000   714.00    640.80      .61       .06      1.71     812.96     50.00
   30425.000   914.00    641.15      .35       .07      2.06     871.64     50.00
   30425.000  1119.00    641.61      .46       .06      2.52     948.81     50.00

   30595.000   322.00    639.10      .00       .01       .00     419.29    170.00
   30595.000   426.00    639.91      .81       .02       .81     600.53    170.00
   30595.000   492.00    640.21      .30       .02      1.11     668.69    170.00
   30595.000   714.00    640.82      .62       .03      1.73     782.82    170.00
   30595.000   914.00    641.18      .36       .03      2.08     842.36    170.00
   30595.000  1119.00    641.64      .46       .04      2.55     920.58    170.00
```

```
CNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

.000    322.00    639.10      .00       .00       .00     110.80    180.00
.000    426.00    639.90      .80      -.01       .80     248.47    180.00
.000    492.00    640.20      .30      -.01      1.10     294.49    180.00
.000    714.00    640.80      .61      -.02      1.70     349.01    180.00
.000    914.00    641.15      .35      -.03      2.05     380.82    180.00
.000   1119.00    641.61      .46      -.04      2.51     422.52    180.00

.000    322.00    639.13      .00       .03       .00      96.95    160.00
.000    426.00    639.92      .79       .02       .79     230.84    160.00
.000    492.00    640.22      .30       .03      1.10     286.22    160.00
.000    714.00    640.85      .62       .04      1.72     343.92    160.00
.000    914.00    641.21      .37       .06      2.09     377.51    160.00
.000   1119.00    641.69      .47       .08      2.56     420.59    160.00

5.000   322.00    639.14      .00       .01       .00      36.50    100.00
5.000   426.00    639.92      .78       .00       .78      36.67    100.00
5.000   492.00    640.22      .30       .00      1.08      36.71    100.00
5.000   714.00    640.82      .60      -.03      1.68      36.74    100.00
5.000   914.00    641.19      .36      -.03      2.05     431.63    100.00
5.000  1119.00    641.67      .48      -.02      2.53     437.95    100.00

5.000   322.00    639.14      .00       .00       .00      36.50     50.00
5.000   426.00    639.93      .78       .00       .78      36.66     50.00
5.000   492.00    640.28      .36       .06      1.14      36.71     50.00
5.000   714.00    640.98      .70       .16      1.84      36.75     50.00
5.000   914.00    641.43      .45       .25      2.29     263.73     50.00
5.000  1119.00    641.93      .49       .26      2.78     440.80     50.00

5.000   322.00    639.18      .00       .03       .00     324.51     50.00
5.000   426.00    639.98      .81       .06       .81     537.50     50.00
5.000   492.00    640.36      .37       .07      1.18     634.03     50.00
5.000   714.00    641.11      .76       .13      1.94     829.70     50.00
5.000   914.00    641.56      .44       .12      2.38     944.40     50.00
5.000  1119.00    641.98      .43       .05      2.80    1033.80     50.00

5.000   322.00    639.20      .00       .02       .00     292.74    210.00
5.000   426.00    640.00      .80       .02       .80     517.87    210.00
5.000   492.00    640.37      .37       .02      1.17     614.67    210.00
5.000   714.00    641.13      .76       .02      1.94     809.25    210.00
5.000   914.00    641.58      .45       .03      2.38     925.13    210.00
5.000  1119.00    642.01      .43       .03      2.81    1033.80    210.00

5.000   322.00    639.23      .00       .03       .00     274.70    270.00
5.000   426.00    640.02      .80       .02       .80     496.63    270.00
5.000   492.00    640.40      .37       .02      1.17     592.91    270.00
5.000   714.00    641.16      .76       .03      1.93     790.58    270.00
5.000   914.00    641.62      .45       .03      2.39     907.99    270.00
5.000  1119.00    642.05      .43       .04      2.82    1020.16    270.00
```

```
     SECNO        Q          CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   31715.000    322.00     639.24       .00       .01       .00     48.16    100.00
   31715.000    426.00     640.03       .79       .00       .79     49.70    100.00
   31715.000    492.00     640.40       .37       .00      1.16     54.32    100.00
   31715.000    714.00     641.15       .76      -.01      1.91    100.38    100.00
   31715.000    914.00     641.60       .45      -.02      2.36    154.99    100.00
   31715.000   1119.00     642.03       .43      -.02      2.79    252.28    100.00

   31765.000    322.00     639.24       .00       .00       .00     48.16     50.00
   31765.000    426.00     640.06       .82       .03       .82     49.70     50.00
   31765.000    492.00     640.44       .39       .05      1.20     49.70     50.00
   31765.000    714.00     641.23       .78       .08      1.99    109.76     50.00
   31765.000    914.00     641.66       .43       .06      2.42    162.67     50.00
   31765.000   1119.00     642.05       .39       .02      2.81    253.21     50.00

   31815.000    322.00     639.24       .00       .00       .00     87.41     50.00
   31815.000    426.00     640.07       .82       .01       .82    305.51     50.00
   31815.000    492.00     640.46       .39       .02      1.22    474.05     50.00
   31815.000    714.00     641.27       .81       .04      2.03    854.85     50.00
   31815.000    914.00     641.73       .46       .07      2.49    974.31     50.00
   31815.000   1119.00     642.13       .40       .08      2.89   1018.80     50.00

   31985.000    322.00     639.27       .00       .03       .00     79.96    170.00
   31985.000    426.00     640.10       .82       .03       .82    284.39    170.00
   31985.000    492.00     640.50       .40       .04      1.22    447.43    170.00
   31985.000    714.00     641.33       .83       .05      2.05    841.60    170.00
   31985.000    914.00     641.80       .47       .07      2.53    966.64    170.00
   31985.000   1119.00     642.22       .42       .08      2.94   1018.80    170.00

   32300.000    322.00     639.33       .00       .06       .00     41.81    315.00
   32300.000    426.00     640.13       .80       .04       .80     60.87    315.00
   32300.000    492.00     640.51       .38       .02      1.18     69.67    315.00
   32300.000    714.00     641.29       .78      -.03      1.96     82.84    315.00
   32300.000    914.00     641.73       .44      -.07      2.40     82.87    315.00
   32300.000   1119.00     642.11       .38      -.11      2.78     82.89    315.00

   32590.000    322.00     639.47       .00       .14       .00     40.50    290.00
   32590.000    426.00     640.25       .78       .12       .78     58.80    290.00
   32590.000    492.00     640.63       .38       .12      1.16     67.72    290.00
   32590.000    714.00     641.43       .80       .13      1.95     82.83    290.00
   32590.000    914.00     641.89       .46       .16      2.42     82.86    290.00
   32590.000   1119.00     642.29       .40       .18      2.82     82.89    290.00

   32690.000    322.00     639.57       .00       .09       .00     49.88    100.00
   32690.000    426.00     640.35       .78       .10       .78     50.42    100.00
   32690.000    492.00     640.73       .38       .10      1.16     50.66    100.00
   32690.000    714.00     641.54       .81       .11      1.97     56.11    100.00
   32690.000    914.00     642.01       .47       .12      2.45     98.16    100.00
   32690.000   1119.00     642.44       .42       .14      2.87    146.16    100.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000     322.00    639.57      .00       .00       .00      49.88     50.00
0.000     426.00    640.35      .78       .00       .78      50.42     50.00
0.000     492.00    640.73      .38       .00      1.16      50.66     50.00
0.000     714.00    641.61      .88       .07      2.04      50.70     50.00
0.000     914.00    642.14      .54       .13      2.58      50.70     50.00
0.000    1119.00    642.59      .45       .15      3.02     159.48     50.00

0.000     322.00    639.56      .00      -.01       .00      35.41     50.00
0.000     426.00    640.34      .78      -.01       .78      40.41     50.00
0.000     492.00    640.72      .38      -.01      1.16      46.02     50.00
0.000     714.00    641.60      .88      -.01      2.04     127.24     50.00
0.000     914.00    642.14      .55       .00      2.58     160.58     50.00
0.000    1119.00    642.60      .46       .01      3.04     182.90     50.00

0.000     315.00    639.63      .00       .07       .00      35.20    210.00
0.000     415.00    640.42      .79       .08       .79      40.06    210.00
0.000     480.00    640.80      .38       .09      1.17      45.01    210.00
0.000     692.00    641.70      .90       .11      2.07     127.53    210.00
0.000     886.00    642.25      .55       .11      2.62     160.72    210.00
0.000    1076.00    642.71      .46       .11      3.08     182.90    210.00

0.000     315.00    639.71      .00       .08       .00      50.67    170.00
0.000     415.00    640.51      .80       .09       .80      57.34    170.00
0.000     480.00    640.90      .39       .10      1.19      70.32    170.00
0.000     692.00    641.83      .93       .12      2.11     284.84    170.00
0.000     886.00    642.40      .57       .14      2.68     346.31    170.00
0.000    1076.00    642.87      .47       .15      3.15     346.70    170.00

0.000     315.00    639.78      .00       .06       .00      40.03    240.00
0.000     415.00    640.57      .79       .06       .79      53.29    240.00
0.000     480.00    640.96      .39       .06      1.18     135.87    240.00
0.000     692.00    641.88      .93       .06      2.11     645.28    240.00
0.000     886.00    642.45      .56       .05      2.67     701.80    240.00
0.000    1076.00    642.91      .46       .04      3.13     701.80    240.00

10.000    315.00    639.87      .00       .09       .00      40.15    300.00
10.000    415.00    640.66      .79       .09       .79      48.07    300.00
10.000    480.00    641.05      .39       .09      1.18      87.21    300.00
10.000    692.00    641.95      .90       .07      2.09     174.00    300.00
10.000    886.00    642.51      .56       .06      2.64     209.02    300.00
10.000   1076.00    642.97      .46       .06      3.10     223.10    300.00

75.000    315.00    639.90      .00       .03       .00      34.08    165.00
75.000    415.00    640.69      .79       .03       .79      38.52    165.00
75.000    480.00    641.08      .39       .03      1.18      40.73    165.00
75.000    692.00    641.97      .89       .01      2.07      48.68    165.00
75.000    886.00    642.49      .53      -.02      2.59      53.45    165.00
75.000   1076.00    642.92      .42      -.05      3.02      58.18    165.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

.000     315.00     643.96      .00       .00       .00     110.59    150.00
.000     415.00     644.52      .55       .00       .55     113.01    150.00
.000     480.00     644.75      .23       .00       .78     114.04    150.00
.000     692.00     645.55      .80       .00      1.58     117.54    150.00
.000     886.00     646.18      .63       .00      2.22     135.57    150.00
.000    1076.00     646.74      .56       .00      2.78     161.84    150.00

.000     315.00     643.96      .00      -.01       .00      29.28    100.00
.000     415.00     644.50      .55      -.01       .55      29.29    100.00
.000     480.00     644.73      .23      -.02       .78      29.30    100.00
.000     692.00     645.52      .78      -.03      1.56      29.30    100.00
.000     886.00     646.14      .62      -.04      2.18      30.35    100.00
.000    1076.00     646.68      .55      -.06      2.73      55.84    100.00

0.000    315.00     643.96      .00       .00       .00      29.28     50.00
0.000    415.00     644.50      .55       .00       .55      29.29     50.00
0.000    480.00     644.73      .23       .00       .78      29.30     50.00
0.000    692.00     645.58      .85       .07      1.63      29.30     50.00
0.000    886.00     646.26      .68       .12      2.30      29.30     50.00
0.000   1076.00     646.88      .62       .19      2.92      91.19     50.00

0.000    315.00     643.98      .00       .03       .00     161.25     50.00
0.000    415.00     644.54      .56       .04       .56     171.70     50.00
0.000    480.00     644.79      .24       .05       .80     178.87     50.00
0.000    692.00     645.68      .89       .09      1.69     189.96     50.00
0.000    886.00     646.40      .72       .13      2.41     231.44     50.00
0.000   1076.00     647.06      .66       .18      3.07     323.71     50.00

0.000    315.00     643.98      .00       .00       .00     156.02    140.00
0.000    415.00     644.55      .56       .00       .56     165.95    140.00
0.000    480.00     644.79      .24       .00       .80     170.22    140.00
0.000    692.00     645.68      .89       .00      1.69     189.09    140.00
0.000    886.00     646.40      .72       .00      2.41     206.18    140.00
0.000   1076.00     647.06      .66       .00      3.07     283.54    140.00

0.000    315.00     643.98      .00       .00       .00     128.88    370.00
0.000    415.00     644.54      .56       .00       .56     175.91    370.00
0.000    480.00     644.78      .24       .00       .80     196.18    370.00
0.000    692.00     645.68      .89       .00      1.69     290.71    370.00
0.000    886.00     646.40      .72       .00      2.42     388.90    370.00
0.000   1076.00     647.06      .66       .00      3.08     388.90    370.00

20.000   315.00     643.99      .00       .00       .00      79.79    110.00
20.000   415.00     644.55      .56       .00       .56     146.33    110.00
20.000   480.00     644.79      .24       .00       .80     163.39    110.00
20.000   692.00     645.68      .89       .00      1.69     235.54    110.00
20.000   886.00     646.40      .72       .00      2.42     361.80    110.00
20.000  1076.00     647.06      .66       .00      3.08     388.90    110.00
```

```
     SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   35720.000    315.00    643.98      .00       .00       .00     28.94    100.00
   35720.000    415.00    644.54      .56      -.01       .56     28.97    100.00
   35720.000    480.00    644.78      .24      -.01       .80     28.98    100.00
   35720.000    692.00    645.66      .87      -.03      1.67     29.00    100.00
   35720.000    886.00    646.36      .70      -.05      2.37     29.00    100.00
   35720.000   1076.00    646.99      .64      -.07      3.01     29.00    100.00

   35760.000    315.00    643.98      .00       .00       .00     28.94     40.00
   35760.000    415.00    644.54      .56       .00       .56     28.97     40.00
   35760.000    480.00    644.78      .24       .00       .80     28.98     40.00
   35760.000    692.00    645.73      .95       .07      1.74     29.00     40.00
   35760.000    886.00    646.50      .77       .14      2.51     29.00     40.00
   35760.000   1076.00    647.23      .73       .23      3.24     29.00     40.00

   35800.000    315.00    644.02      .00       .04       .00    161.49     40.00
   35800.000    415.00    644.60      .58       .06       .58    163.79     40.00
   35800.000    480.00    644.86      .25       .08       .83    164.80     40.00
   35800.000    692.00    645.85     1.00       .13      1.83    187.40     40.00
   35800.000    886.00    646.67      .82       .18      2.65    209.19     40.00
   35800.000   1076.00    647.45      .78       .23      3.43    239.62     40.00

   36100.000    315.00    644.02      .00       .00       .00    157.16    300.00
   36100.000    415.00    644.60      .58       .00       .58    159.42    300.00
   36100.000    480.00    644.86      .25       .00       .83    160.43    300.00
   36100.000    692.00    645.85     1.00       .00      1.83    164.40    300.00
   36100.000    886.00    646.67      .82       .00      2.65    179.98    300.00
   36100.000   1076.00    647.46      .78       .00      3.43    200.76    300.00

   36250.000    315.00    644.03      .00       .00       .00    204.94    150.00
   36250.000    415.00    644.60      .58       .00       .58    207.37    150.00
   36250.000    480.00    644.86      .25       .00       .83    208.49    150.00
   36250.000    692.00    645.86     1.00       .00      1.83    212.89    150.00
   36250.000    886.00    646.68      .82       .00      2.65    216.50    150.00
   36250.000   1076.00    647.46      .78       .00      3.43    219.94    150.00

   36315.000    315.00    644.01      .00      -.01       .00     62.64     65.00
   36315.000    415.00    644.59      .57      -.02       .57     66.35     65.00
   36315.000    480.00    644.84      .25      -.02       .82     68.18     65.00
   36315.000    692.00    645.83      .99      -.03      1.81     75.67     65.00
   36315.000    886.00    646.64      .81      -.04      2.63     81.37     65.00
   36315.000   1076.00    647.42      .78      -.04      3.41     86.39     65.00

 * 36316.000    315.00    643.44      .00      -.57       .00     24.74      1.00
   36316.000    415.00    644.05      .61      -.53       .61     27.24      1.00
   36316.000    480.00    644.24      .18      -.60       .79     28.96      1.00
   36316.000    692.00    645.56     1.32      -.27      2.11     73.56      1.00
   36316.000    886.00    646.47      .91      -.17      3.03     80.22      1.00
   36316.000   1076.00    647.29      .82      -.13      3.85     85.48      1.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

5.000    315.00    644.39       .00       .95       .00    308.13    269.00
5.000    415.00    644.92       .53       .87       .53    310.48    269.00
5.000    480.00    645.22       .30       .98       .82    312.36    269.00
5.000    692.00    646.04       .82       .48      1.64    316.46    269.00
5.000    886.00    646.80       .77       .33      2.41    327.19    269.00
5.000   1076.00    647.56       .76       .27      3.17    341.75    269.00

5.000    315.00    644.39       .00       .00       .00    160.86    310.00
5.000    415.00    644.92       .53       .00       .53    167.42    310.00
5.000    480.00    645.22       .30       .00       .82    170.79    310.00
5.000    692.00    646.03       .81      -.01    . 1.64    180.05    310.00
5.000    886.00    646.80       .77      -.01      2.41    188.78    310.00
5.000   1076.00    647.56       .76      -.01      3.17    206.32    310.00

5.000    315.00    644.38       .00      -.01       .00     55.98    310.00
5.000    415.00    644.90       .52      -.02       .52     62.91    310.00
5.000    480.00    645.20       .29      -.02       .82     66.85    310.00
5.000    692.00    646.00       .81      -.03      1.62     77.69    310.00
5.000    886.00    646.77       .76      -.03      2.39     87.96    310.00
5.000   1076.00    647.53       .76      -.03      3.15     98.15    310.00

5.000    315.00    644.40       .00       .01       .00     55.98     40.00
5.000    415.00    644.92       .53       .02       .53     63.03     40.00
5.000    480.00    645.22       .30       .02       .82     66.98     40.00
5.000    692.00    646.03       .81       .02      1.63     77.92     40.00
5.000    886.00    646.79       .76       .02      2.40     88.20     40.00
5.000   1076.00    647.55       .76       .02      3.15    120.49     40.00

5.000    315.00    644.43       .00       .04       .00     29.45    100.00
5.000    415.00    644.96       .53       .04       .53     29.59    100.00
5.000    480.00    645.25       .29       .03       .82     29.66    100.00
5.000    692.00    646.06       .81       .03      1.63     56.65    100.00
5.000    886.00    646.82       .76       .03      2.39    111.39    100.00
5.000   1076.00    647.58       .76       .03      3.15    166.66    100.00

35.000    315.00    644.43       .00       .00       .00     29.45     40.00
35.000    415.00    644.96       .53       .00       .53     29.59     40.00
35.000    480.00    645.25       .29       .00       .82     29.66     40.00
35.000    692.00    646.14       .89       .08      1.71     63.76     40.00
35.000    886.00    646.93       .79       .11      2.50    119.18     40.00
35.000   1076.00    647.69       .75       .10      3.25    176.57     40.00

25.000    315.00    644.40       .00      -.03       .00     34.13     40.00
25.000    415.00    644.92       .52      -.03       .52     38.85     40.00
25.000    480.00    645.21       .29      -.03       .81     45.55     40.00
25.000    692.00    646.13       .92      -.01      1.73    149.72     40.00
25.000    886.00    646.97       .84       .04      2.57    197.66     40.00
25.000   1076.00    647.76       .79       .07      3.36    298.83     40.00
```

```
     SECNO        Q       CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

   37695.000    315.00   644.65      .00       .24       .00      33.88    270.00
   37695.000    415.00   645.19      .55       .27       .55      38.26    270.00
   37695.000    480.00   645.49      .30       .28       .85      44.04    270.00
   37695.000    692.00   646.37      .88       .24      1.73     148.85    270.00
   37695.000    886.00   647.12      .75       .15      2.48     189.10    270.00
   37695.000   1076.00   647.85      .73       .09      3.20     225.21    270.00

   38025.000    290.00   645.15      .00       .51       .00      30.01    330.00
   38025.000    365.00   645.74      .59       .55       .59      45.96    330.00
   38025.000    408.00   646.06      .32       .57       .91      64.34    330.00
   38025.000    493.00   646.88      .82       .51      1.73      65.70    330.00
   38025.000    525.00   647.47      .59       .34      2.31      66.67    330.00
   38025.000   1063.00   648.07      .60       .21      2.91      67.66    330.00

   38325.000    290.00   645.90      .00       .75       .00      86.03    300.00
   38325.000    365.00   646.44      .54       .70       .54      87.25    300.00
   38325.000    408.00   646.71      .27       .65       .81      87.71    300.00
   38325.000    493.00   647.32      .62       .44      1.42      88.77    300.00
   38325.000    525.00   647.77      .45       .31      1.87      89.54    300.00
   38325.000   1063.00   648.75      .98       .69      2.85      92.20    300.00

   38625.000    290.00   646.35      .00       .45       .00      90.18    300.00
   38625.000    365.00   646.82      .46       .38       .46      91.40    300.00
   38625.000    408.00   647.05      .24       .35       .70      92.02    300.00
   38625.000    493.00   647.59      .53       .26      1.23     101.54    300.00
   38625.000    525.00   647.97      .38       .19      1.62     111.12    300.00
   38625.000   1063.00   649.09     1.12       .34      2.74     149.60    300.00

   38935.000    290.00   646.69      .00       .34       .00      87.43    310.00
   38935.000    365.00   647.12      .43       .30       .43      94.04    310.00
   38935.000    408.00   647.33      .22       .28       .64      96.85    310.00
   38935.000    493.00   647.81      .48       .23      1.12     103.05    310.00
   38935.000    525.00   648.14      .33       .18      1.46     140.19    310.00
   38935.000   1063.00   649.33     1.19       .24      2.64     256.20    310.00

   39235.000    290.00   647.00      .00       .31       .00      74.57    300.00
   39235.000    365.00   647.42      .41       .30       .41      89.74    300.00
   39235.000    408.00   647.63      .21       .29       .62      94.56    300.00
   39235.000    493.00   648.07      .44       .25      1.06      99.83    300.00
   39235.000    525.00   648.35      .28       .21      1.35     103.18    300.00
   39235.000   1063.00   649.56     1.21       .23      2.56     201.63    300.00

   39565.000    290.00   647.21      .00       .21       .00     103.46    330.00
   39565.000    365.00   647.64      .43       .22       .43     126.74    330.00
   39565.000    408.00   647.85      .21       .22       .64     135.08    330.00
   39565.000    493.00   648.28      .43       .21      1.07     145.95    330.00
   39565.000    525.00   648.54      .26       .19      1.33     180.15    330.00
   39565.000   1063.00   649.80     1.27       .24      2.59     282.56    330.00
```

```
CNO      Q        CWSEL    DIFWSP   DIFWSX   DIFKWS   TOPWID     XLCH

.000    290.00   647.22      .00      .01      .00   104.27     30.00
.000    365.00   647.64      .43      .01      .43   127.34     30.00
.000    408.00   647.86      .21      .01      .64   135.46     30.00
.000    493.00   648.29      .43      .01     1.07   146.28     30.00
.000    525.00   648.54      .26      .01     1.33   181.10     30.00
.000   1063.00   649.81     1.27      .01     2.59   282.59     30.00

5.000   290.00   647.18      .00     -.04      .00    19.90    100.00
5.000   365.00   647.58      .40     -.06      .40    20.37    100.00
5.000   408.00   647.78      .20     -.08      .60    20.60    100.00
5.000   493.00   648.25      .47     -.04     1.07   228.57    100.00
5.000   525.00   648.54      .29      .00     1.36   240.90    100.00
5.000  1063.00   649.83     1.29      .02     2.66   285.00    100.00

0.000   290.00   646.92      .00     -.26      .00    19.59      5.00
0.000   365.00   648.37     1.45      .79     1.45   233.45      5.00
0.000   408.00   648.43      .06      .65     1.51   235.93      5.00
0.000   493.00   648.53      .11      .28     1.62   240.39      5.00
0.000   525.00   648.56      .03      .02     1.64   241.56      5.00
0.000  1063.00   649.83     1.27     -.01     2.91   285.00      5.00

0.000   290.00   647.08      .00      .17      .00    19.78     30.00
0.000   365.00   648.63     1.55      .26     1.55   244.37     30.00
0.000   408.00   648.68      .05      .25     1.59   246.16     30.00
0.000   493.00   648.77      .09      .24     1.69   284.53     30.00
0.000   525.00   648.80      .04      .25     1.72   284.61     30.00
0.000  1063.00   649.85     1.05      .02     2.77   285.00     30.00

5.000   290.00   647.97      .00      .89      .00   217.16      5.00
5.000   365.00   648.72      .75      .10      .75   245.84      5.00
5.000   408.00   648.78      .06      .10      .81   245.89      5.00
5.000   493.00   648.88      .10      .11      .90   245.98      5.00
5.000   525.00   648.91      .04      .11      .94   248.02      5.00
5.000  1063.00   649.88      .97      .03     1.91   248.10      5.00

5.000   290.00   648.02      .00      .05      .00   226.33     40.00
5.000   365.00   648.74      .72      .02      .72   248.05     40.00
5.000   408.00   648.80      .06      .02      .78   248.10     40.00
5.000   493.00   648.90      .10      .03      .88   248.10     40.00
5.000   525.00   648.94      .04      .03      .92   248.10     40.00
5.000  1063.00   649.91      .97      .03     1.88   248.10     40.00

5.000   290.00   648.07      .00      .05      .00    60.39     90.00
5.000   365.00   648.76      .68      .01      .68   114.08     90.00
5.000   408.00   648.82      .06      .01      .74   122.15     90.00
5.000   493.00   648.92      .10      .02      .85   136.91     90.00
5.000   525.00   648.96      .04      .02      .88   140.94     90.00
5.000  1063.00   649.92      .97      .02     1.85   274.33     90.00
```

```
    SECNO       Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

  40185.000   290.00   648.14      .00       .07       .00     70.57    320.00
  40185.000   365.00   648.82      .68       .06       .68    189.52    320.00
  40185.000   408.00   648.89      .07       .08       .75    211.21    320.00
  40185.000   493.00   649.02      .13       .10       .88    296.45    320.00
  40185.000   525.00   649.07      .05       .11       .93    303.43    320.00
  40185.000  1063.00   650.09     1.02       .17      1.95    381.74    320.00

  40395.000   290.00   648.22      .00       .08       .00     60.93    210.00
  40395.000   365.00   648.88      .67       .06       .67     89.52    210.00
  40395.000   408.00   648.96      .08       .07       .75     94.51    210.00
  40395.000   493.00   649.11      .15       .09       .89    113.68    210.00
  40395.000   525.00   649.17      .05       .09       .95    122.54    210.00
  40395.000  1063.00   650.18     1.02       .09      1.96    229.93    210.00

  40525.000   290.00   648.27      .00       .06       .00    108.19    130.00
  40525.000   365.00   648.94      .66       .05       .66    197.56    130.00
  40525.000   408.00   649.03      .09       .06       .75    226.17    130.00
  40525.000   493.00   649.20      .17       .09       .92    282.55    130.00
  40525.000   525.00   649.26      .06       .09       .98    301.50    130.00
  40525.000  1063.00   650.31     1.05       .13      2.04    715.10    130.00

  40735.000   290.00   648.42      .00       .14       .00     53.40    210.00
  40735.000   365.00   649.04      .62       .10       .62     59.70    210.00
  40735.000   408.00   649.14      .10       .11       .73     62.40    210.00
  40735.000   493.00   649.32      .18       .13       .91     67.29    210.00
  40735.000   525.00   649.39      .07       .13       .97     69.08    210.00
  40735.000  1063.00   650.35      .96       .04      1.94     75.06    210.00

  40935.000   290.00   648.57      .00       .16       .00     44.98    200.00
  40935.000   365.00   649.19      .62       .15       .62     49.15    200.00
  40935.000   408.00   649.32      .12       .18       .74     49.99    200.00
  40935.000   493.00   649.54      .23       .22       .97     51.52    200.00
  40935.000   525.00   649.63      .08       .24      1.05     53.69    200.00
  40935.000  1063.00   650.79     1.17       .44      2.22    176.28    200.00

  41135.000   290.00   648.78      .00       .20       .00     55.39    200.00
  41135.000   365.00   649.40      .62       .21       .62     60.22    200.00
  41135.000   408.00   649.55      .15       .23       .78     61.41    200.00
  41135.000   493.00   649.83      .28       .29      1.06     66.50    200.00
  41135.000   525.00   649.94      .10       .31      1.16     69.47    200.00
  41135.000  1063.00   651.25     1.32       .46      2.48    233.77    200.00

  41330.000   381.00   648.83      .00       .06       .00     35.09    195.00
  41330.000   513.00   649.43      .60       .03       .60     37.79    195.00
  41330.000   585.00   649.58      .15       .03       .75     38.46    195.00
  41330.000   711.00   649.85      .27       .02      1.02     39.69    195.00
  41330.000   759.00   649.95      .10       .01      1.12     40.13    195.00
  41330.000  1135.00   651.44     1.49       .18      2.61    273.53    195.00
```

```
ECNO      Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000    381.00   649.14      .00       .30       .00    112.65    200.00
0.000    513.00   649.81      .67       .38       .67    117.13    200.00
0.000    585.00   650.03      .22       .45       .89    118.59    200.00
0.000    711.00   650.42      .39       .56      1.28    121.18    200.00
0.000    759.00   650.56      .14       .61      1.42    122.12    200.00
0.000   1135.00   651.58     1.02       .14      2.44    331.99    200.00

0.000    381.00   649.19      .00       .05       .00    313.67    180.00
0.000    513.00   649.86      .67       .05       .67    338.32    180.00
0.000    585.00   650.08      .22       .05       .89    343.04    180.00
0.000    711.00   650.48      .40       .06      1.29    349.96    180.00
0.000    759.00   650.62      .14       .06      1.43    352.46    180.00
0.000   1135.00   651.62     1.00       .04      2.43    369.87    180.00

0.000    381.00   649.19      .00       .01       .00    310.57     80.00
0.000    513.00   649.86      .67       .01       .67    335.11     80.00
0.000    585.00   650.08      .22       .01       .89    341.52     80.00
0.000    711.00   650.48      .40       .00      1.29    348.44     80.00
0.000    759.00   650.62      .14       .00      1.43    350.95     80.00
0.000   1135.00   651.62     1.00       .00      2.43    368.34     80.00

0.000    381.00   649.13      .00      -.06       .00     20.50    100.00
0.000    513.00   649.75      .62      -.12       .62     20.50    100.00
0.000    585.00   650.02      .28      -.06       .89     38.03    100.00
0.000    711.00   650.39      .37      -.09      1.26     39.21    100.00
0.000    759.00   650.53      .13      -.10      1.40     39.64    100.00
0.000   1135.00   651.63     1.10       .01      2.49   1040.50    100.00

5.000    381.00   649.09      .00      -.04       .00     35.07      5.00
5.000    513.00   649.65      .56      -.10       .56     36.84      5.00
5.000    585.00   649.79      .14      -.23       .70     37.30      5.00
5.000    711.00   650.03      .24      -.36       .94     38.06      5.00
5.000    759.00   650.11      .08      -.42      1.02     38.31      5.00
5.000   1135.00   651.60     1.49      -.03      2.51   1040.50      5.00

5.000    381.00   649.12      .00       .03       .00     35.15     30.00
5.000    513.00   649.70      .58       .05       .58     37.00     30.00
5.000    585.00   649.86      .16       .06       .74     37.51     30.00
5.000    711.00   650.13      .27       .09      1.01     38.34     30.00
5.000    759.00   650.22      .09       .11      1.10     38.63     30.00
5.000   1135.00   651.64     1.42       .04      2.52   1040.50     30.00

0.000    381.00   649.26      .00       .14       .00     20.50      5.00
0.000    513.00   650.03      .77       .33       .77     20.50      5.00
0.000    585.00   650.33      .30       .47      1.07     20.50      5.00
0.000    711.00   651.37     1.04      1.24      2.11   1040.50      5.00
0.000    759.00   651.65      .28      1.43      2.39   1040.50      5.00
0.000   1135.00   651.72      .07       .08      2.46   1040.50      5.00
```

```
    SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

  41960.000    381.00    649.43       .00       .17       .00    100.00     30.00
  41960.000    513.00    650.28       .86       .25       .86    100.00     30.00
  41960.000    585.00    650.63       .35       .30      1.20    100.00     30.00
  41960.000    711.00    651.36       .73      -.01      1.93    100.00     30.00
  41960.000    759.00    651.63       .27      -.02      2.20    100.00     30.00
  41960.000   1135.00    651.67       .04      -.05      2.24    100.00     30.00

  42155.000    381.00    649.57       .00       .14       .00    220.00    195.00
  42155.000    513.00    650.38       .82       .10       .82    220.00    195.00
  42155.000    585.00    650.73       .34       .10      1.16    220.00    195.00
  42155.000    711.00    651.44       .71       .08      1.87    220.00    195.00
  42155.000    759.00    651.71       .27       .08      2.14    220.00    195.00
  42155.000   1135.00    651.84       .13       .17      2.27    220.00    195.00

  42420.000    381.00    649.65       .00       .08       .00    194.31    265.00
  42420.000    513.00    650.43       .78       .05       .78    201.03    265.00
  42420.000    585.00    650.77       .34       .04      1.12    207.11    265.00
  42420.000    711.00    651.47       .70       .03      1.82    219.80    265.00
  42420.000    759.00    651.73       .26       .02      2.08    224.55    265.00
  42420.000   1135.00    651.89       .15       .05      2.23    227.33    265.00

  42725.000    381.00    649.82       .00       .17       .00     65.21    305.00
  42725.000    513.00    650.53       .70       .10       .70     66.57    305.00
  42725.000    585.00    650.84       .32       .08      1.02     77.13    305.00
  42725.000    711.00    651.51       .67       .05      1.69     80.00    305.00
  42725.000    759.00    651.77       .25       .04      1.94     80.00    305.00
  42725.000   1135.00    651.95       .18       .07      2.13     80.00    305.00

  42845.000    381.00    650.16       .00       .34       .00     18.60    120.00
  42845.000    513.00    650.77       .61       .25       .61     18.60    120.00
  42845.000    585.00    651.05       .28       .21       .89     18.60    120.00
  42845.000    711.00    651.60       .55       .09      1.44     18.60    120.00
  42845.000    759.00    651.82       .21       .05      1.65     18.60    120.00
  42845.000   1135.00    652.00       .18       .05      1.84     18.60    120.00

  42855.000    381.00    650.18       .00       .01       .00     23.00     10.00
  42855.000    513.00    650.79       .61       .02       .61     24.95     10.00
  42855.000    585.00    651.07       .28       .02       .89     25.84     10.00
  42855.000    711.00    651.62       .55       .02      1.44     27.62     10.00
  42855.000    759.00    651.83       .21       .01      1.65     28.29     10.00
  42855.000   1135.00    652.03       .19       .03      1.85     28.91     10.00

  43045.000    381.00    650.30       .00       .13       .00     23.41    190.00
  43045.000    513.00    650.96       .65       .17       .65     25.51    190.00
  43045.000    585.00    651.26       .30       .20       .96     26.48    190.00
  43045.000    711.00    651.85       .58       .23      1.54     28.35    190.00
  43045.000    759.00    652.07       .22       .24      1.76     29.06    190.00
  43045.000   1135.00    652.68       .61       .65      2.37     30.99    190.00
```

```
ECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

5.000    381.00    650.43       .00       .12       .00     18.21     10.00
5.000    513.00    651.14       .71       .18       .71     21.69     10.00
5.000    585.00    651.48       .34       .22      1.05     21.74     10.00
5.000    711.00    652.13       .65       .28      1.70     21.84     10.00
5.000    759.00    652.38       .25       .31      1.95     21.87     10.00
5.000   1135.00    653.38      1.00       .70      2.95     22.02     10.00

5.000    381.00    651.01       .00       .59       .00     21.67    100.00
5.000    513.00    651.89       .88       .75       .88     21.80    100.00
5.000    585.00    652.30       .41       .82      1.29     21.86    100.00
5.000    711.00    653.03       .73       .90      2.02     21.97    100.00
5.000    759.00    653.30       .27       .93      2.29     22.01    100.00
5.000   1135.00    654.77      1.46      1.39      3.75     22.22    100.00

5.000    381.00    651.51       .00       .50       .00     52.71    150.00
5.000    513.00    652.44       .93       .55       .93     55.90    150.00
5.000    585.00    652.89       .45       .59      1.38     57.42    150.00
5.000    711.00    653.67       .78       .63      2.16     60.07    150.00
5.000    759.00    653.95       .29       .65      2.44     61.05    150.00
5.000   1135.00    655.52      1.57       .76      4.01    295.54    150.00

5.000    381.00    651.80       .00       .29       .00    217.74    370.00
5.000    513.00    652.65       .85       .21       .85    221.96    370.00
5.000    585.00    653.08       .43       .19      1.28    232.70    370.00
5.000    711.00    653.83       .75       .16      2.03    314.23    370.00
5.000    759.00    654.11       .28       .15      2.31    344.22    370.00
5.000   1135.00    655.60      1.50       .08      3.80    372.87    370.00

5.000    322.00    651.98       .00       .18       .00     57.87    340.00
5.000    406.00    652.75       .77       .10       .77     76.61    340.00
5.000    450.00    653.15       .40       .08      1.18    111.34    340.00
5.000    527.00    653.88       .72       .05      1.90    156.21    340.00
5.000    684.00    654.15       .27       .04      2.17    170.65    340.00
5.000   1041.00    655.63      1.48       .03      3.65    236.38    340.00

5.000    322.00    652.25       .00       .27       .00     62.15    320.00
5.000    406.00    652.98       .73       .23       .73     70.06    320.00
5.000    450.00    653.36       .38       .21      1.11     73.11    320.00
5.000    527.00    654.03       .67       .15      1.78     79.64    320.00
5.000    684.00    654.35       .32       .19      2.09     94.56    320.00
5.000   1041.00    655.75      1.40       .12      3.49    222.92    320.00

0.000    322.00    652.40       .00       .14       .00     63.94    195.00
0.000    406.00    653.10       .71       .12       .71     71.02    195.00
0.000    450.00    653.47       .37       .11      1.07     73.98    195.00
0.000    527.00    654.12       .65       .09      1.72     84.07    195.00
0.000    684.00    654.46       .35       .12      2.07    100.40    195.00
0.000   1041.00    655.84      1.37       .09      3.44    230.82    195.00
```

```
    SECNO        Q         CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID      XLCH

  44630.000    322.00     652.48       .00        .08        .00      25.87     100.00
  44630.000    406.00     653.16       .69        .06        .69      25.98     100.00
  44630.000    450.00     653.52       .36        .05       1.04      26.03     100.00
  44630.000    527.00     654.15       .63        .03       1.67      26.13     100.00
  44630.000    684.00     654.49       .34        .03       2.01      26.18     100.00
  44630.000   1041.00     655.77      1.28       -.07       3.30      26.30     100.00

  44830.000    322.00     652.49       .00        .02        .00      20.26     200.00
  44830.000    406.00     653.18       .69        .02        .69      20.27     200.00
  44830.000    450.00     653.54       .36        .02       1.05      20.27     200.00
  44830.000    527.00     654.17       .63        .02       1.68      20.28     200.00
  44830.000    684.00     654.53       .36        .04       2.04      20.28     200.00
  44830.000   1041.00     656.05      1.52        .28       3.56      20.29     200.00

  44870.000    322.00     652.56       .00        .07        .00      20.25      40.00
  44870.000    406.00     653.26       .70        .08        .70      20.26      40.00
  44870.000    450.00     653.62       .36        .08       1.06      20.26      40.00
  44870.000    527.00     654.25       .63        .08       1.69      20.27      40.00
  44870.000    684.00     654.65       .40        .12       2.09      20.27      40.00
  44870.000   1041.00     656.17      1.52        .12       3.61      20.28      40.00

  44910.000    322.00     652.59       .00        .03        .00      25.00      40.00
  44910.000    406.00     653.30       .71        .04        .71      25.00      40.00
  44910.000    450.00     653.66       .36        .04       1.07      25.00      40.00
  44910.000    527.00     654.30       .64        .05       1.71      25.00      40.00
  44910.000    684.00     654.72       .42        .07       2.13      25.00      40.00
  44910.000   1041.00     656.59      1.87        .42       3.99     359.76      40.00

  44915.000    322.00     652.54       .00       -.05        .00      50.51       5.00
  44915.000    406.00     653.20       .66       -.09        .66      57.12       5.00
  44915.000    450.00     653.53       .33       -.13        .99      60.41       5.00
  44915.000    527.00     654.10       .56       -.20       1.55      88.50       5.00
  44915.000    684.00     654.35       .26       -.37       1.81     110.67       5.00
  44915.000   1041.00     655.54      1.19      -1.04       3.00     321.80       5.00

  44955.000    322.00     652.58       .00        .03        .00      50.85      40.00
  44955.000    406.00     653.26       .68        .06        .68      57.71      40.00
  44955.000    450.00     653.60       .34        .07       1.03      61.13      40.00
  44955.000    527.00     654.19       .59        .10       1.62      97.87      40.00
  44955.000    684.00     654.56       .36        .20       1.98     140.07      40.00
  44955.000   1041.00     655.89      1.34        .35       3.31     334.52      40.00

  44960.000    322.00     652.85       .00        .27        .00      45.83       5.00
  44960.000    406.00     653.69       .84        .43        .84      49.98       5.00
  44960.000    450.00     654.15       .45        .54       1.30      50.00       5.00
  44960.000    527.00     654.96       .81        .76       2.11      50.00       5.00
  44960.000    684.00     655.82       .87       1.27       2.97      50.00       5.00
  44960.000   1041.00     658.63      2.81       2.74       5.78     832.36       5.00
```

```
ECNO      Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

5.000    322.00   652.91      .00       .06       .00     80.34     65.00
5.000    406.00   653.75      .84       .06       .84    185.70     65.00
5.000    450.00   654.21      .45       .06      1.29    245.29     65.00
5.000    527.00   655.02      .81       .06      2.10    287.45     65.00
5.000    684.00   655.90      .88       .07      2.98    318.29     65.00
5.000   1041.00   658.63     2.74       .00      5.72    386.37     65.00

5.000    322.00   653.21      .00       .30       .00    104.74    320.00
5.000    406.00   653.93      .72       .17       .72    136.27    320.00
5.000    450.00   654.32      .40       .12      1.11    153.49    320.00
5.000    527.00   655.07      .74       .05      1.86    185.88    320.00
5.000    684.00   655.93      .86       .03      2.72    214.62    320.00
5.000   1041.00   658.64     2.71       .01      5.43    295.54    320.00

0.000    322.00   653.48      .00       .27       .00    124.75    305.00
0.000    406.00   654.09      .61       .16       .61    153.96    305.00
0.000    450.00   654.44      .36       .12       .96    176.62    305.00
0.000    527.00   655.14      .69       .07      1.66    312.02    305.00
0.000    684.00   655.97      .84       .05      2.49    335.00    305.00
0.000   1041.00   658.65     2.68       .02      5.18    410.48    305.00

0.000    322.00   653.51      .00       .04       .00     26.74    100.00
0.000    406.00   654.07      .56      -.01       .56     28.26    100.00
0.000    450.00   654.43      .36      -.01       .92    140.34    100.00
0.000    527.00   655.15      .72       .01      1.63    162.50    100.00
0.000    684.00   655.98      .83       .00      2.46    219.78    100.00
0.000   1041.00   658.65     2.68       .00      5.14    329.06    100.00

55.000    322.00   653.42      .00      -.10       .00     26.48      5.00
55.000    406.00   653.99      .57      -.09       .57     28.02      5.00
55.000    450.00   654.34      .35      -.09       .92    138.38      5.00
55.000    527.00   655.08      .75      -.06      1.67    160.36      5.00
55.000    684.00   655.94      .86      -.03      2.53    217.97      5.00
55.000   1041.00   658.65     2.70      -.01      5.23    328.91      5.00

57.000    322.00   653.42      .00       .01       .00     26.50      2.00
57.000    406.00   653.99      .57       .01       .57     28.04      2.00
57.000    450.00   654.34      .35       .01       .92    138.51      2.00
57.000    527.00   655.09      .75       .00      1.66    160.42      2.00
57.000    684.00   655.94      .86       .00      2.52    218.00      2.00
57.000   1041.00   658.65     2.70       .00      5.22    328.67      2.00

60.000    322.00   653.74      .00       .32       .00     27.37      3.00
60.000    406.00   654.29      .55       .30       .55    137.32      3.00
60.000    450.00   654.71      .42       .37       .97    148.27      3.00
60.000    527.00   655.27      .56       .18      1.53    166.33      3.00
60.000    684.00   656.04      .77       .10      2.30    222.03      3.00
60.000   1041.00   658.66     2.62       .02      4.92    328.99      3.00
```

```
    SECNO        Q         CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID      XLCH

  45785.000    322.00    653.88       .00       .14       .00     27.74     25.00
  45785.000    406.00    654.48       .59       .18       .59    141.31     25.00
  45785.000    450.00    654.80       .32       .09       .92    151.31     25.00
  45785.000    527.00    655.31       .51       .04      1.42    167.17     25.00
  45785.000    684.00    656.06       .75       .02      2.18    222.45     25.00
  45785.000   1041.00    658.66      2.61       .00      4.78    329.38     25.00

  45810.000    322.00    654.03       .00       .15       .00     34.02     25.00
  45810.000    406.00    654.60       .57       .12       .57    136.29     25.00
  45810.000    450.00    654.86       .27       .06       .84    150.09     25.00
  45810.000    527.00    655.34       .47       .03      1.31    171.21     25.00
  45810.000    684.00    656.07       .74       .02      2.05    204.11     25.00
  45810.000   1041.00    658.67      2.59       .00      4.64    272.32     25.00

  45815.000    322.00    653.96       .00      -.06       .00     33.96      5.00
  45815.000    406.00    654.49       .52      -.11       .52    130.83      5.00
  45815.000    450.00    654.74       .25      -.12       .78    143.89      5.00
  45815.000    527.00    655.23       .49      -.10      1.27    166.40      5.00
  45815.000    684.00    656.02       .79      -.06      2.05    201.64      5.00
  45815.000   1041.00    658.66      2.64       .00      4.70    272.32      5.00

  45835.000    322.00    653.97       .00       .01       .00     33.96     20.00
  45835.000    406.00    654.50       .53       .01       .53    131.39     20.00
  45835.000    450.00    654.76       .26       .02       .79    144.47     20.00
  45835.000    527.00    655.25       .49       .02      1.28    166.83     20.00
  45835.000    684.00    656.03       .78       .01      2.06    201.99     20.00
  45835.000   1041.00    658.66      2.63       .00      4.69    272.24     20.00

  45840.000    322.00    654.13       .00       .16       .00     32.16      5.00
  45840.000    406.00    654.81       .68       .31       .68    200.12      5.00
  45840.000    450.00    655.11       .30       .35       .98    250.32      5.00
  45840.000    527.00    655.55       .44       .30      1.42    310.39      5.00
  45840.000    684.00    656.21       .65       .18      2.07    430.59      5.00
  45840.000   1041.00    658.69      2.48       .02      4.56    565.77      5.00

  45870.000    322.00    654.17       .00       .04       .00    119.87     30.00
  45870.000    406.00    654.84       .67       .03       .67    203.91     30.00
  45870.000    450.00    655.13       .29       .02       .96    253.35     30.00
  45870.000    527.00    655.57       .44       .01      1.39    314.39     30.00
  45870.000    684.00    656.21       .65       .01      2.04    431.53     30.00
  45870.000   1041.00    658.69      2.48       .00      4.51    565.88     30.00

  46140.000    322.00    654.26       .00       .09       .00    395.38    270.00
  46140.000    406.00    654.90       .64       .06       .64    515.53    270.00
  46140.000    450.00    655.18       .28       .05       .92    529.90    270.00
  46140.000    527.00    655.60       .42       .03      1.34    551.83    270.00
  46140.000    684.00    656.24       .64       .02      1.97    576.04    270.00
  46140.000   1041.00    658.69      2.46       .01      4.43    638.84    270.00
```

```
ECNO       Q        CWSEL   DIFWSP    DIFWSX    DIFKWS    TOPWID     XLCH

0.000    322.00    654.27      .00       .00       .00    435.34   150.00
0.000    406.00    654.90      .64       .00       .64    520.27   150.00
0.000    450.00    655.18      .28       .00       .92    539.36   150.00
0.000    527.00    655.60      .42       .00      1.34    568.52   150.00
0.000    684.00    656.24      .64       .00      1.97    602.43   150.00
0.000   1041.00    658.70     2.46       .00      4.43    713.35   150.00

0.000    322.00    654.27      .00       .00       .00    192.92   250.00
0.000    406.00    654.91      .64       .00       .64    358.23   250.00
0.000    450.00    655.18      .28       .00       .92    358.43   250.00
0.000    527.00    655.60      .42       .00      1.34    358.74   250.00
0.000    684.00    656.24      .64       .00      1.97    369.56   250.00
0.000   1041.00    658.70     2.46       .00      4.43    559.19   250.00

0.000    322.00    654.22      .00      -.05       .00     28.51    70.00
0.000    406.00    654.87      .65      -.03       .65    232.28    70.00
0.000    450.00    655.16      .29      -.02       .94    235.09    70.00
0.000    527.00    655.59      .43      -.01      1.37    235.80    70.00
0.000    684.00    656.23      .64      -.01      2.01    318.23    70.00
0.000   1041.00    658.70     2.46       .00      4.47    413.23    70.00

20.000    322.00    654.13      .00      -.10       .00     28.09    10.00
20.000    406.00    654.67      .55      -.20       .55    192.84    10.00
20.000    450.00    654.89      .22      -.27       .77    234.23    10.00
20.000    527.00    655.36      .47      -.23      1.24    235.41    10.00
20.000    684.00    656.20      .84      -.03      2.08    316.66    10.00
20.000   1041.00    658.69     2.49       .00      4.57    413.15    10.00

50.000    322.00    654.15      .00       .03       .00     28.24    30.00
50.000    406.00    654.71      .56       .04       .56    217.95    30.00
50.000    450.00    654.95      .23       .05       .80    234.70    30.00
50.000    527.00    655.90      .95       .53      1.75    302.85    30.00
50.000    684.00    656.23      .33       .02      2.07    317.22    30.00
50.000   1041.00    658.70     2.47       .00      4.55    413.15    30.00

60.000    322.00    654.28      .00       .13       .00     14.00    10.00
60.000    406.00    655.32     1.04       .61      1.04    226.00    10.00
60.000    450.00    655.72      .39       .77      1.43    262.08    10.00
60.000    527.00    656.04      .32       .14      1.75    310.28    10.00
60.000    684.00    656.33      .29       .10      2.04    321.52    10.00
60.000   1041.00    658.70     2.37       .01      4.42    413.18    10.00

20.000    322.00    654.21      .00      -.07       .00     13.30    60.00
20.000    406.00    654.87      .66      -.45       .66     13.30    60.00
20.000    450.00    655.17      .30      -.55       .96     13.30    60.00
20.000    527.00    655.30      .14      -.73      1.09     13.30    60.00
20.000    684.00    656.21      .91      -.11      2.00     39.62    60.00
20.000   1041.00    658.61     2.40      -.09      4.40    165.77    60.00
```

```
   SECNO        Q        CWSEL    DIFWSP   DIFWSX   DIFKWS   TOPWID     XLCH

 46800.000    322.00    654.21      .00      .00      .00    13.30    80.00
 46800.000    406.00    654.87      .66      .00      .66    13.30    80.00
 46800.000    450.00    655.17      .30      .00      .96    13.30    80.00
 46800.000    527.00    655.31      .14      .00     1.09    13.30    80.00
 46800.000    684.00    656.74     1.44      .53     2.53    13.30    80.00
 46800.000   1041.00    659.99     3.24     1.38     5.77   280.39    80.00

 46880.000    322.00    655.04      .00      .83      .00    65.66    80.00
 46880.000    406.00    655.79      .75      .92      .75    74.93    80.00
 46880.000    450.00    656.15      .36      .98     1.11    79.08    80.00
 46880.000    527.00    656.57      .41     1.26     1.52    83.83    80.00
 46880.000    684.00    657.97     1.40     1.22     2.92    99.98    80.00
 46880.000   1041.00    660.01     2.05      .02     4.97   136.84    80.00

 47100.000    322.00    655.13      .00      .09      .00    58.87   220.00
 47100.000    406.00    655.87      .74      .08      .74    67.10   220.00
 47100.000    450.00    656.22      .35      .07     1.09   158.32   220.00
 47100.000    527.00    656.64      .41      .07     1.51   198.62   220.00
 47100.000    684.00    658.02     1.38      .05     2.89   283.70   220.00
 47100.000   1041.00    660.05     2.03      .04     4.92   386.10   220.00

 47400.000    322.00    655.29      .00      .16      .00    62.02   300.00
 47400.000    406.00    656.02      .73      .15      .73    65.57   300.00
 47400.000    450.00    656.36      .34      .14     1.07    67.47   300.00
 47400.000    527.00    656.76      .40      .12     1.47    70.95   300.00
 47400.000    684.00    658.06     1.30      .05     2.77    82.28   300.00
 47400.000   1041.00    660.06     1.99      .00     4.76    93.82   300.00

 47625.000    322.00    655.38      .00      .09      .00    62.45   225.00
 47625.000    406.00    656.11      .73      .09      .73    66.03   225.00
 47625.000    450.00    656.45      .34      .09     1.07    68.28   225.00
 47625.000    527.00    656.86      .41      .09     1.48    71.74   225.00
 47625.000    684.00    658.14     1.29      .08     2.76    82.93   225.00
 47625.000   1041.00    660.13     1.98      .07     4.75    94.15   225.00

 47725.000    322.00    655.40      .00      .02      .00    15.00   100.00
 47725.000    406.00    656.13      .73      .02      .73    45.47   100.00
 47725.000    450.00    656.47      .34      .02     1.07    48.14   100.00
 47725.000    527.00    656.88      .41      .02     1.48    51.36   100.00
 47725.000    684.00    658.16     1.28      .02     2.76    67.96   100.00
 47725.000   1041.00    660.15     1.99      .02     4.75   148.55   100.00

 47730.000    322.00    655.32      .00     -.08      .00    39.03     5.00
 47730.000    406.00    655.95      .63     -.19      .63    43.96     5.00
 47730.000    450.00    656.24      .29     -.23      .92    46.26     5.00
 47730.000    527.00    656.55      .32     -.33     1.24    48.73     5.00
 47730.000    684.00    657.58     1.03     -.58     2.27    56.81     5.00
 47730.000   1041.00    659.71     2.13     -.44     4.39   132.12     5.00
```

```
ECNO      Q       CWSEL   DIFWSP   DIFWSX   DIFKWS   TOPWID    XLCH

0.000   322.00   655.34     .00      .03      .00    39.25    30.00
0.000   406.00   655.99     .64      .04      .64    44.23    30.00
0.000   450.00   656.29     .30      .05      .95    46.58    30.00
0.000   527.00   656.62     .33      .07     1.28    49.27    30.00
0.000   684.00   657.70    1.08      .12     2.36    57.72    30.00
0.000  1041.00   659.72    2.02      .00     4.37   131.96    30.00

5.000   322.00   655.63     .00      .29      .00    43.33     5.00
5.000   406.00   656.48     .85      .49      .85    50.45     5.00
5.000   450.00   656.91     .43      .62     1.28    54.06     5.00
5.000   527.00   657.50     .59      .88     1.87    59.01     5.00
5.000   684.00   659.25    1.75     1.55     3.62   135.31     5.00
5.000  1041.00   660.90    1.65     1.18     5.27   197.28     5.00

5.000   322.00   655.67     .00      .04      .00    43.64    40.00
5.000   406.00   656.52     .85      .04      .85    50.84    40.00
5.000   450.00   656.95     .43      .04     1.28    54.43    40.00
5.000   527.00   657.54     .59      .04     1.87    59.29    40.00
5.000   684.00   659.27    1.73      .02     3.60   136.35    40.00
5.000  1041.00   660.91    1.64      .01     5.24   197.30    40.00

0.000    87.00   655.77     .00      .09      .00    70.29   295.00
0.000    90.00   656.61     .85      .09      .85    73.02   295.00
0.000    90.00   657.04     .43      .09     1.28    74.67   295.00
0.000    90.00   657.63     .59      .09     1.87    77.72   295.00
0.000   522.00   659.35    1.72      .08     3.58    87.92   295.00
0.000   916.00   660.97    1.62      .06     5.21    98.89   295.00

0.000    87.00   655.77     .00      .00      .00    64.11   190.00
0.000    90.00   656.62     .85      .00      .85    70.69   190.00
0.000    90.00   657.04     .43      .00     1.28    74.00   190.00
0.000    90.00   657.63     .59      .00     1.87    78.57   190.00
0.000   522.00   659.36    1.73      .01     3.59   116.34   190.00
0.000   916.00   660.99    1.63      .02     5.22   129.29   190.00

0.000    87.00   655.78     .00      .01      .00    48.22   220.00
0.000    90.00   656.62     .85      .00      .85    53.00   220.00
0.000    90.00   657.05     .43      .00     1.27    55.41   220.00
0.000    90.00   657.63     .59      .00     1.86    58.73   220.00
0.000   522.00   659.39    1.76      .03     3.62    93.22   220.00
0.000   916.00   661.03    1.64      .04     5.25   100.82   220.00

5.000    87.00   655.78     .00      .01      .00   229.69   305.00
5.000    90.00   656.62     .84      .00      .84   259.20   305.00
5.000    90.00   657.05     .43      .00     1.27   274.27   305.00
5.000    90.00   657.64     .59      .00     1.86   300.09   305.00
5.000   522.00   659.42    1.78      .03     3.64   367.24   305.00
5.000   916.00   661.07    1.65      .05     5.29   384.29   305.00
```

```
    SECNO        Q        CWSEL    DIFWSP    DIFWSX    DIFKWS    TOPWID    XLCH

  49080.000    87.00    655.78       .00       .00       .00    182.69    265.00
  49080.000    90.00    656.62       .84       .00       .84    202.61    265.00
  49080.000    90.00    657.05       .43       .00      1.27    227.36    265.00
  49080.000    90.00    657.64       .59       .00      1.85    341.44    265.00
  49080.000   522.00    659.42      1.79       .00      3.64    401.06    265.00
  49080.000   916.00    661.07      1.65       .00      5.29    506.55    265.00

  49300.000    87.00    655.78       .00       .00       .00    177.22    220.00
  49300.000    90.00    656.62       .84       .00       .84    274.78    220.00
  49300.000    90.00    657.05       .42       .00      1.27    293.58    220.00
  49300.000    90.00    657.64       .59       .00      1.85    319.57    220.00
  49300.000   522.00    659.42      1.79       .00      3.64    634.28    220.00
  49300.000   916.00    661.08      1.65       .00      5.29    753.80    220.00

  49680.000    87.00    655.79       .00       .00       .00    235.42    380.00
  49680.000    90.00    656.63       .84       .00       .84    331.04    380.00
  49680.000    90.00    657.05       .42       .00      1.26    361.23    380.00
  49680.000    90.00    657.64       .59       .00      1.85    398.89    380.00
  49680.000   522.00    659.43      1.79       .00      3.64    534.66    380.00
  49680.000   916.00    661.08      1.65       .00      5.29    592.50    380.00

  49980.000    87.00    655.79       .00       .00       .00    330.84    300.00
  49980.000    90.00    656.63       .84       .00       .84    364.35    300.00
  49980.000    90.00    657.05       .42       .00      1.26    376.38    300.00
  49980.000    90.00    657.64       .59       .00      1.85    393.01    300.00
  49980.000   522.00    659.43      1.79       .00      3.64    530.42    300.00
  49980.000   916.00    661.08      1.65       .00      5.29    606.71    300.00

  50320.000    87.00    655.79       .00       .00       .00    243.64    340.00
  50320.000    90.00    656.63       .84       .00       .84    372.90    340.00
  50320.000    90.00    657.05       .42       .00      1.26    385.61    340.00
  50320.000    90.00    657.64       .59       .00      1.85    403.20    340.00
  50320.000   522.00    659.43      1.79       .00      3.64    457.59    340.00
  50320.000   916.00    661.08      1.65       .00      5.29    507.43    340.00

  50560.000    87.00    655.79       .00       .00       .00    225.94    240.00
  50560.000    90.00    656.63       .84       .00       .84    272.91    240.00
  50560.000    90.00    657.05       .42       .00      1.26    287.79    240.00
  50560.000    90.00    657.64       .59       .00      1.85    302.78    240.00
  50560.000   522.00    659.43      1.79       .00      3.64    409.91    240.00
  50560.000   916.00    661.08      1.65       .00      5.29    671.84    240.00

  50585.000    87.00    655.79       .00       .00       .00    225.99     25.00
  50585.000    90.00    656.63       .84       .00       .84    272.92     25.00
  50585.000    90.00    657.05       .42       .00      1.26    287.80     25.00
  50585.000    90.00    657.64       .59       .00      1.85    302.78     25.00
  50585.000   522.00    659.43      1.79       .00      3.64    409.94     25.00
  50585.000   916.00    661.08      1.65       .00      5.29    671.86     25.00
```

```
ECNO       Q        CWSEL     DIFWSP     DIFWSX     DIFKWS     TOPWID       XLCH

5.000     87.00    655.79       .00        .00        .00      20.00     100.00
5.000     90.00    656.63       .84        .00        .84      95.60     100.00
5.000     90.00    657.05       .42        .00       1.26     146.73     100.00
5.000     90.00    657.64       .59        .00       1.85     172.10     100.00
5.000    522.00    659.43      1.79        .00       3.64     391.84     100.00
5.000    916.00    661.08      1.65        .00       5.29     610.00     100.00

0.000     87.00    655.75       .00       -.04        .00      29.14       5.00
0.000     90.00    656.58       .83       -.04        .83      88.58       5.00
0.000     90.00    657.01       .42       -.05       1.25     145.86       5.00
0.000     90.00    657.59       .59       -.05       1.84     169.99       5.00
0.000    522.00    659.35      1.76       -.08       3.60     354.58       5.00
0.000    916.00    661.08      1.73        .00       5.33     610.00       5.00

0.000     87.00    655.77       .00        .02        .00      29.17      40.00
0.000     90.00    656.61       .83        .03        .83      91.53      40.00
0.000     90.00    657.03       .42        .03       1.26     146.22      40.00
0.000     90.00    657.62       .59        .03       1.84     170.86      40.00
0.000    522.00    659.52      1.90        .17       3.74     430.46      40.00
0.000    916.00    661.08      1.57        .00       5.31     610.00      40.00

5.000     87.00    655.88       .00        .11        .00      23.90       5.00
5.000     90.00    656.72       .84        .12        .84      26.00       5.00
5.000     90.00    657.15       .42        .12       1.27      26.91       5.00
5.000     90.00    657.74       .59        .12       1.85      26.94       5.00
5.000    522.00    659.63      1.90        .11       3.75     266.64       5.00
5.000    916.00    661.09      1.46        .00       5.20     278.60       5.00

5.000     87.00    655.88       .00        .00        .00      23.90      50.00
5.000     90.00    656.73       .84        .00        .84     113.44      50.00
5.000     90.00    657.15       .42        .00       1.27     148.87      50.00
5.000     90.00    657.74       .59        .00       1.85     177.31      50.00
5.000    522.00    659.63      1.90        .00       3.75     266.67      50.00
5.000    916.00    661.09      1.45        .00       5.20     278.60      50.00

0.000     87.00    655.90       .00        .01        .00     136.34     255.00
0.000     90.00    656.73       .84        .01        .84     205.33     255.00
0.000     90.00    657.16       .42        .01       1.26     244.31     255.00
0.000     90.00    657.74       .58        .00       1.84     256.69     255.00
0.000    522.00    659.65      1.91        .01       3.75     280.34     255.00
0.000    916.00    661.10      1.45        .01       5.20     285.90     255.00

5.000     87.00    655.92       .00        .03        .00      17.78     325.00
5.000     90.00    656.75       .82        .01        .82     107.83     325.00
5.000     90.00    657.16       .42        .01       1.24     116.21     325.00
5.000     90.00    657.74       .58        .00       1.82     201.24     325.00
5.000    522.00    659.66      1.91        .01       3.73     250.00     325.00
5.000    916.00    661.11      1.45        .01       5.19     250.00     325.00
```

```
 SUMMARY OF ERRORS AND SPECIAL NOTES


CAUTION  SECNO= 34400.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 1  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 1  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 34400.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 2  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 2  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 34400.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 3  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 3  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 34400.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 4  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 4  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 34400.000  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL
CAUTION  SECNO= 34400.000  PROFILE= 6  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 34400.000  PROFILE= 6  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 34400.000  PROFILE= 6  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 36316.000  PROFILE= 1  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 36316.000  PROFILE= 1  MINIMUM SPECIFIC ENERGY

CAUTION  SECNO= 39700.000  PROFILE= 2  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 39700.000  PROFILE= 2  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 39700.000  PROFILE= 3  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 39700.000  PROFILE= 3  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 39700.000  PROFILE= 4  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 39700.000  PROFILE= 4  MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 39700.000  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 39700.000  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 39700.000  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 46720.000  PROFILE= 5  CRITICAL DEPTH ASSUMED
CAUTION  SECNO= 46720.000  PROFILE= 5  PROBABLE MINIMUM SPECIFIC ENERGY
CAUTION  SECNO= 46720.000  PROFILE= 5  20 TRIALS ATTEMPTED TO BALANCE WSEL

CAUTION  SECNO= 47760.000  PROFILE= 6  WSEL ASSUMED BASED ON MIN DIFF
CAUTION  SECNO= 47760.000  PROFILE= 6  20 TRIALS ATTEMPTED TO BALANCE WSEL
```

APPENDIX F

RESERVOIR SUMMARY TABLES

RP/IDOT/AC6

APPENDIX F

TABLE OF CONTENTS

William Redmond

S.C.S. Structure No. 86

York Road/I-90

Arlington Cemetery

Railroad Avenue

Eugene A. Doyle

Lower Elmhurst (proposed)

Hillside Retention

WILLIAM REDMOND RESERVOIR

Location: East of York Road and north of George Street in Bensenville, DuPage County.

Year Constructed: 1977

Operated and Maintained by: Village of Bensenville

As-built Storage Frequency: 50-year

As-built Storage Volume: 685 acre-feet

As-built High Water Elevation: 657 feet

Bypass Structure: From west inlet - twin 42-inch RCP. From north inlet - 60 inches by 38 inches elliptical RCP.

Inlet Structure: West inlet - 20-foot concrete spillway. North inlet - 25-foot concrete spillway.

Outlet Structure: one-10 cfs pump and 3-50 cfs pumps

Emergency Spillway: None

Pump Data: 10 cfs pump has automated operation. The 10 cfs pump turns on when pool elevation rises above 632 feet elevation. A sensor downstream of George Street deactivates the 10 cfs pump. 50 cfs pumps are operated manually

Operation: Inflows that do not pass over the inlet spillways are allowed to bypass the reservoir. The 10 cfs pump which will turn on automatically is sometimes shut off manually during a storm event. The 10 cfs pump is used to dewater the reservoir a day or two after the event or when Addison Creek is within its banks downstream of George Street. The 50 cfs pump is rarely used because of limited channel capacity downstream, but was used during the August 1987 event.

Discharge Location: Into a concrete forbay upstream of George Street culvert, where bypass flows are combined with pumped flow.

S.C.S. STRUCTURE NO. 86

Location: East of Railroad Avenue and south of Grand Avenue in Northlake, Cook County

Year Constructed: 1984 (temporary structure)

Operated and Maintained by: City of Northlake

As-built Storage Frequency: 50-year

As-built Storage Volume: 355 acre-feet

As-built Design High Water Elevation: 651.7 feet

Bypass Structure: Addison Creek

Inlet Structure: 24-foot gabion spillway

Outlet Structure: Pumped Outlet

Emergency Spillway: Inlet structure serves as overflow spillway

Pump Data: Temporary Portable Pump; capacity 5 cfs

Operation: The reservoir is uncontrolled when filling. The reservoir is dewatered with a portable pump a day or two after the storm event.

Discharge Location: Addison Creek

YORK ROAD/I-90 RESERVOIR

Location: Eisenhower Expressway (I-290) and York Road in DuPage County

Year Constructed: 1977

Operated and Maintained by: IDOT

As-built Computed Design Frequency: 5-year

As-built Storage Volume: 18 acre-feet

As-built High Water Elevation: 682 feet

Bypass Structure: None

Inlet Structure: Storm Sewer Outfalls

Outlet Structure: Storm Sewer

Emergency Spillway: None

Pump Data: None

Operation: None

Discharge Location: 24-inch storm sewer along York Road

ARLINGTON CEMETERY RESERVOIR

Location: North of North Avenue and west of County Line Road in Elmhurst, DuPage County

Year Constructed: 1981

Operated and Maintained by: City of Elmhurst

As-built Storage Frequency: 25-year

As-built Storage Volume: 66 acre-feet

As-built High Water Elevation: 656 feet

Bypass Structure: 24-inch RCP

Inlet Structure: 20-foot Concrete Spillway

Outlet Structure: Three - 3 cfs pumps discharge into the 24-inch bypass pipe which outfalls to an open ditch then flows to a 13' x 4' box culvert at County Line Road.

Emergency Spillway: 170 foot grassed spillway

Pump Data: Three 3 cfs pumps manually operated

Operation: Flows that do not pass over the inflow spillway are allowed to bypass the reservoir. After a storm event, the reservoir is pumped using the three 3 cfs pumps a day or two after the storm event.

Discharge Location: Into an open channel upstream County Line Road culvert then towards Railroad Avenue Reservoir.

RAILROAD AVENUE RESERVOIR

Location; West of Railroad Avenue and north of North Avenue in Northlake, Cook County

Year Constructed: 1981/82

Operated and Maintained by: City of Northlake

As-built Storage Frequency: 2-year

As-built Storage Volume: 37 acre-feet

As-built High Water Elevation: 652 feet

Bypass Structure: 30-inch RCP to a 38-inch by 24-inch elliptical pipe

Inlet Structure: 14-foot concrete spillway

Outlet Structure: Three - 3 cfs pumps discharge to a bypass channel then into the 30-inch RCP. Gravity drain pipe to 647.0 feet.

Emergency Spillway: 30-foot grassed spillway to and open ditch to the 38-inch by 24-inch elliptical culvert at Railroad Avenue

Pump Data: Three 3 cfs pumps manually operated

Operation: A gate is located at the upstream end of the 30 inch RCP bypass. It is manually operated. During heavy rainfall, the gate is closed to eliminate bypass flow. The gate remains closed until structure is dewatered.

Discharge Location: Railroad Avenue then eventually to Addison Creek via storm sewer

EUGENE A. DOYLE RESERVOIR

Location: Between North Avenue and Lake Street west of Railroad Avenue in Northlake, Cook County

Year Constructed: 1979

Operated and Maintained by: City of Northlake

As-built Storage Frequency: 5-year

As-built Storage Volume: 73 acre-feet

As-built Design High Water Elevation: 653 feet

Bypass Structure: 8-inch and 12-inch storm sewers to North Avenue. 24-inch storm sewer to Lake Street

Inlet Structure: 72-inch and 60-inch RCP outfalls at northwest structure. 42-inch RCP at southwest structure

Outlet Structure: Gravity drain pipe to elevation 644.9 feet and three 3 cfs pumps

Emergency Spillway: None

Pump Data: Three 3 cfs pumps manually operated

Operation: The pump station discharge line serves as a fourth inlet to the structure to relieve surcharging of the Lake Street sewer. The gate on the 42-inch discharge line is usually kept closed until dewatering begins. Since the invert is eight feet below the high water elevation it must be closed to use all the available capacity. The reservoir is pumped when the City of Northlake personnel determine that downstream flooding is no longer a problem.

Discharge Location: Lake Street storm sewer

LOWER ELMHURST RESERVOIR (PROPOSED)

Location: Between I-290 and I-294, and north of St. Charles Road

Year Constructed: Proposed

Operated and Maintained by: City of Elmhurst, once completed

Computed Proposed Storage Frequency: 10-year for both upper and lower pools.

Proposed Storage Volume: 18 acre-feet in lower pool
86 acre-feet in upper pool

Design High Water Elevation: 664.0 feet (lower pool)
678.0 feet (upper pool)

Bypass Structures: Two 60-inch RCP from county line sewer will empty into a concrete forebay. Forebay has 36-inch RCP outlet for bypass flow.

Inlet Structure: Overflow weir in forebay is 36-inch high and 35-feet long. Flow enters lower pool when forebay depth exceeds 36-inches at elevation 661.5. Four 50 cfs pumps used to fill upper pool from lower pool.

Outlet Structure: Upper pool-1 foot wide automated sluice gate raised 1 to 2-feet, releases flow into lower pool. Lower pool 24 inch circular outlet with flap gate releases into forebay. Flap gate prevents inflow.

Emergency Spillway: Lower pool only. Weir at elevation 664.0 is 75-feet long.

Pump Data: Dewatered by gravity flow except lowest part of pumping station is dewatered by a 250 gpm sump pump

Operation: Initially only lower pool fills. Once lower pool reaches 661.0 feet pumping to upper pool begins. Pumps are staged so that flow is 50 cfs at 661.0 but reaches 200 cfs when lower pool is at 662.2. Pumping ceases if upper pool fills to 678.0 ft. Sluice gate automatically limits upper pool outflow to a maximum of 24 cfs.

Discharge Location: Via 54-inch and 48-inch storm sewers to Addison Creek

HILLSIDE RETENTION RESERVOIR

Location: North of Roosevelt Road and east of Wolf Road in Hillside, Cook County

Year Constructed: 1976

Operated and Maintained by: Village of Hillside

As-built Storage Frequency: 10-year

As-built Storage Volume: 120 acre-feet

As-built High Water Elevation: 636 feet

Bypass Structure: None

Inlet Structure: 60-inch RCP at north inlet and 66-inch RCP at south inlet

Outlet Structure: Pumped outlet to 30-inch RCP. Pump house east of south inlet.

Emergency Spillway: None

Pump Data: Two 5 cfs pumps automatically operated. One 16 cfs pump with manual operation.

Operation: The small pumps operate one at a time, alternating automatically. Using all three existing pumps can create some downstream flooding.

Discharge Location: Through a 30-inch RCP to an open channel upstream of the Roosevelt Road culvert.

RP/IDOT/AC5

881-6 e
21-48 NY

BOUND BY
HNM

UNIVERSITY OF ILLINOIS-URBANA
3 0112 121965971